MATICA TECHNOLOGIES

USER GUIDE

MOCA ESPRESSO

Copyright

Matica Technologies
June 2014
All rights reserved

Copyright Notice

Users must respect the copyright regulations applicable in their own respective countries. Photocopying, translation, reproduction or transmission of this manual, in whole or in part, for any reason and using any electronic or mechanical means whatsoever, without the prior written permission of the Manufacturer company is strictly forbidden.
All contents of this manual are subject to change without prior notice.
The Manufacturer accepts no liability for any errors that may be found in this manual, or for any loss or damage that may arise accidentally or as a result of diffusion or use of this manual.

Trademarks

All other trademarks are the property of their respective owners.

Printer Warranty

Refer to the warranty statement provided with the printer for the warranty terms and conditions, and its limitations of liability.

Environmental Impact

Matica is committed to reducing the environmental impact of its products through improvements in energy efficiency.

DIRECTIVE 2002/96/EC ON THE TREATMENT, COLLECTION, RECYCLING AND DISPOSAL OF ELECTRIC AND ELECTRONIC DEVICES AND THEIR COMPONENTS

1. FOR COUNTRIES IN THE EUROPEAN UNION (EU)

The disposal of electric and electronic devices as solid urban waste is strictly prohibited: it must be collected separately. The dumping of these devices at unequipped and unauthorized places may have hazardous effects on health and the environment. Offenders will be subjected to the penalties and measures laid down by the law.

TO DISPOSE OF OUR DEVICES CORRECTLY:

a) Contact the Local Authorities, who will give you the practical information you need and the instructions for handling the waste correctly, for example: location and times of the waste collection centres, etc.

b) When you purchase a new device of ours, give a used device similar to the one purchased to our dealer for disposal.

The crossed dustbin symbol on the device means that:

- When it to be disposed of, the device is to be taken to the equipped waste collection centres and is to be handled separately from urban waste;
- *Matica Technologies* guarantees the activation of the treatment, collection, recycling and disposal procedures in accordance with Directive 2002/96/EC (and subsequent amendments).

2. FOR OTHER COUNTRIES (NOT IN THE EU)

The treatment, collection, recycling and disposal of electric and electronic devices will be carried out in accordance with the laws in force in the country in question.

Table of Contents

PRODUCT OVERVIEW 1-1

GETTING STARTED 1-1

Unpacking the Printer 1-2
Functional Description 1-3
Front View 1-3
Operator Panel 1-3
Rear View 1-4
Power Supply 1-4
Ribbon 1-4
Plastic Cards 1-4

INSTALLATION PROCEDURES 2-1

Installing the Ribbon 2-1
Card Feeding 2-2
Input Hopper (Automatic Card Feeder) 2-2
Front Slot (Manual Card Hopper) 2-3
Adjusting the Card Thickness 2-3
Connecting the Power Supply and Powering ON the Printer 2-4

INSTALLING THE SOFTWARE AND CONFIGURING THE PRINTER 3-1

Connecting the Printer to the Computer and Installing the Software 3-1
Add Printer Wizard Program Communication 3-3
USB Connection 3-3
Ethernet (LAN) Connection using DHCP 3-4
Ethernet (LAN) Connection with Fixed IP 3-6
Wi-Fi Connection using DHCP 3-8
Wi-Fi Connection with Fixed IP 3-10
Uninstall Program Tabs 3-12
Matica Printer Manager 3-12
Using the Printer Manager Instrument Bar with the Mouse 3-12
Printers Management 3-13
Printer Manager 3-14
Status Monitor 3-15
Preferences 3-17
Maintenance 3-17
Encoding (optional) 3-18
Settings 3-18
Updating the Printer Firmware 3-19
Duplex activation 3-19
Options 3-19
Help 3-20
Printer Status Pop-up 3-21

PRINTING 4-1
Card Printing 4-1
Card Printing Using Word 4-1
Magnetic Encoder 4-2
Double-side Printing 4-3

PRINTER MAINTENANCE 5-1
Printer Routine Cleaning 5-1
Standard Cleaning 5-1
Standard Cleaning Procedure 5-1
Card Path Advanced Cleaning 5-4
Advanced Cleaning Procedure 5-4
Cleaning Roller Advanced Cleaning 5-7
Roller Cleaning Procedure 5-7
Printhead Cleaning 5-10
Printhead Cleaning Procedure 5-10
Printing Test Cards 5-11
Printing a Text Test Card 5-11
Printing Graphic Test Card 5-11
Printing a Dual-Side Test Card 5-11

WEB SERVER INTERFACE 6-1
Standard Communication Web Server Interface Tab 6-1
Smart Communication (SoM) Web Server Interface Tab 6-1

ENCODING OPTIONS 7-1
Smart Card Encoding Station 7-1
Smart Card Encoding Station Location 7-1
Smart Card Encoding Station Interfaces 7-1
External Encoding 7-1
Contactless Smart Card Encoding 7-2
Card Positioning and Antenna Location 7-2
Computer Connection 7-2
Encoding Function 7-2
Magnetic Encoding 7-3
Reading the ATR Code on Contact Cards 7-4
Reading the ATR Code on Contactless Cards 7-5

CONFIGURATIONS AND OPTIONS 8-1

TECHNICAL CHARACTERISTICS 9-2

Product Overview

The printer described in this User Guide provides full color dye-sublimation or monochrome thermal transfer printing on standard 54x86 mm plastic cards. PVC, PVC Composite, PET, ABS and PET cards are supported. It is managed from the computer through the USB port or via Ethernet/WiFi (accordingly with varnished card product configuration).

The ribbon carrier, that comes with the printer, allows the ribbon to be replaced quickly and easily.

A number of options are available so that the printer can be configured to operate in different types of environments:

- Magnetic encoder
- Smart Card Encoding Station
- Contact and Contactless Smart Card encoder
- 10/100 Ethernet and/or 802-11 Wi-Fi connection
- Single Card Feed Option
- Connection for external smart card encoding
- Locking system for input Hopper, reject bin and ribbons.

Getting Started

The printer comes with a number of accessories; check carefully that they have been all received. This list may vary depending on the location where the printer will be used.

The printer is shipped in special packaging designed to prevent damage during transportation. If any visible damage is noticed upon reception, contact the dealer immediately.

Maintain the printer packaging intact and store it in a clean and dry place.

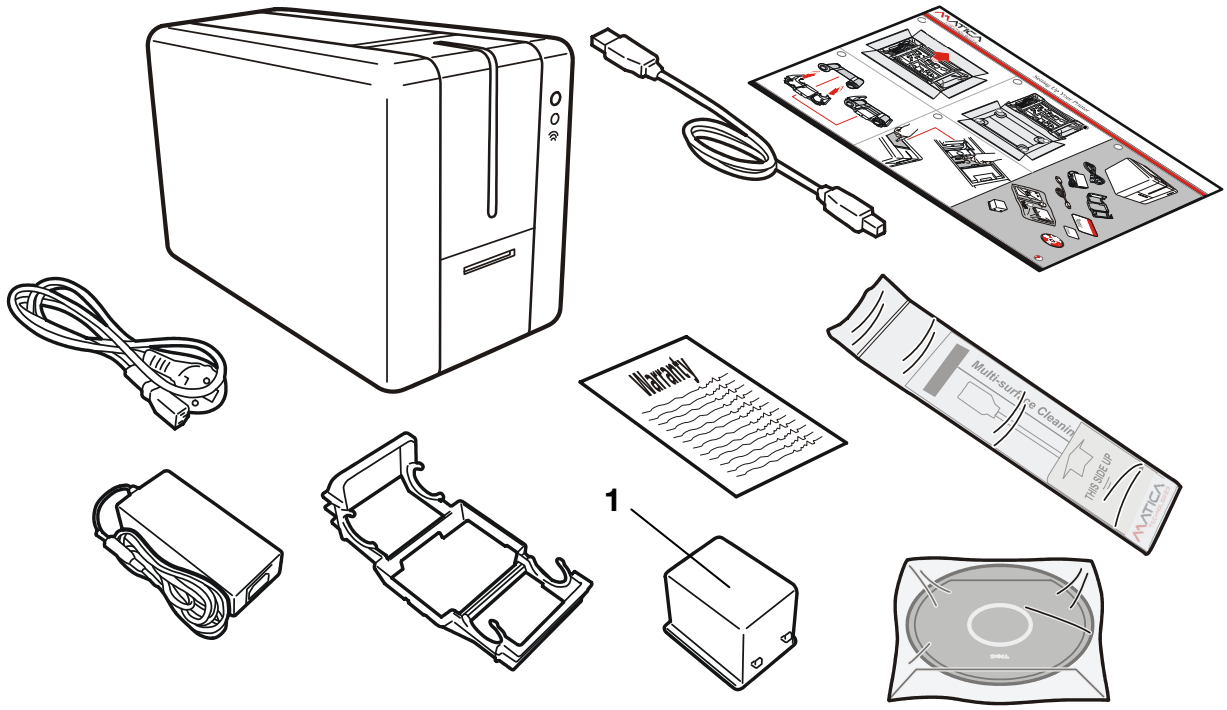
Note: If the printer has to be returned, it must be returned integrally with its full original packaging (box, inner wedges and protective bags). If it is returned without its original packaging and any components are damaged during transportation, such components will no longer be covered by the warranty. Matica will also charge for the new packaging which will be required to ship the printer back.

Unpacking the Printer

The following items are included in the box:

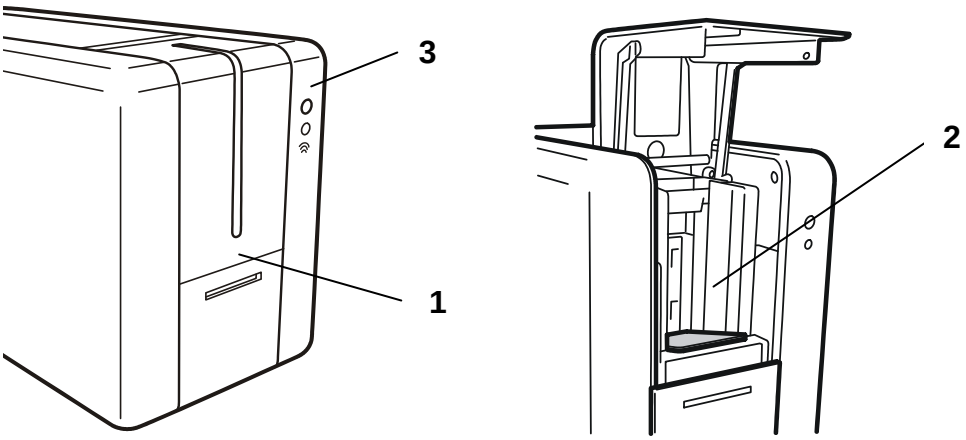
- Printer
- Software CD-ROM containing the installer, printer driver and Printer Manager
- The Placemat
- Warranty and Customer Service Information
- Cleaning kit
- Power cord
- Power supply
- USB cable
- Reject bin, optional for Moca **(1)**

Note: Contact the dealer immediately if any of the items listed above is missing.
Only use the power supply provided with the printer.



Functional Description

Front View



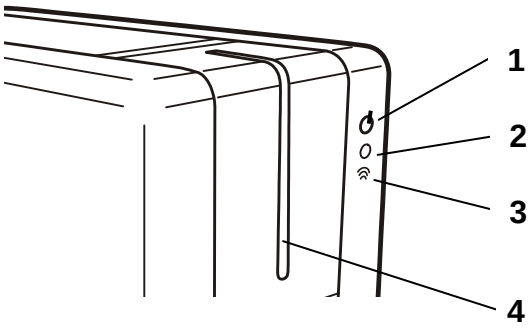
The front of the printer is the operator side and features:

1) Front slot (only when this option has been ordered)

2) Input Hopper

3) Operator panel and printer status indicators: ON/OFF button and a 3-color printer status LED.

Operator Panel



The front operator panel consists of:

1) Soft touch ON/OFF button with a white LED that, when on, indicates when the printer is switched ON:

- Switches the printer ON and OFF; to switch OFF the printer keep this button pressed for a few seconds.

2) 3-color LED (amber, red and green) indicating the printer's functional status or an error condition.

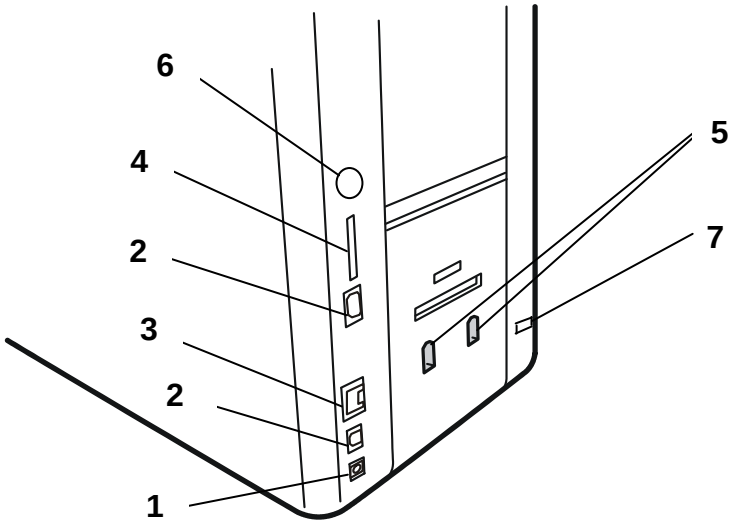
- **Green**
  On steady → Printer ready
  Flashing → Printer receiving data or printing
- **Amber**
  On Steady → Ribbon almost finished
  Flashing → Operational error: no ribbon or card detected
- **Red**
  On Steady → Mechanical error (cover open, incorrect card insertion or faulty mechanical component)
  Flashing → Servicing required (during cleaning, heating, cooling or during firmware upgrade)

3) Soft touch WiFi button (for printer models with WiFi module only) with a blue LED:

- Switches the WiFi module ON and OFF
- **Blue** LED:
  On Steady → WiFi connection established
  Flashing → WiFi data reception/transmission underway

4) Backlit blue stripe: illuminates the Card Hopper to simplify card detection.

Rear View



The following components are located on the back panel:

1) Power cord socket

2) Two USB connectors (Type A and B)

3) Ethernet connector with traffic LED

4) SD card (option) slot

5) Reject bin attachment slots

6) External smart encoder (option) connector

7) Kensington lock.

Power Supply

The printer comes with an external auto-switching power supply.

Note: Only use the power supply that comes with the printer.

Ribbon

The following Matica ribbons can be used:

- **Monochrome black (K):** 2000 prints
- **5 panels (YMCKO):** 200 and 250 prints
- **Half panels (hY-hM-hC-KO):** 400 prints
- **6 panels (YMCKOK):** 200 prints
- **Black and Overlay (KO)**: 600 prints
- **Monochrome Red, Blue, Green, White**: 1.000 prints
- **Monochrome metal Gold, Silver**: 500 prints
- **Scratch-off**.

Each Matica ribbon has an RFID tag with ribbon identification data that allows the printer to configure all the counting and optimization parameters and procedures.

It is strongly suggested to exclusively use original Matica ribbons. The use of non-original accessories could damage the product and therefore void the factory warranty.

Plastic Cards

Listed below are the plastic card specifications:

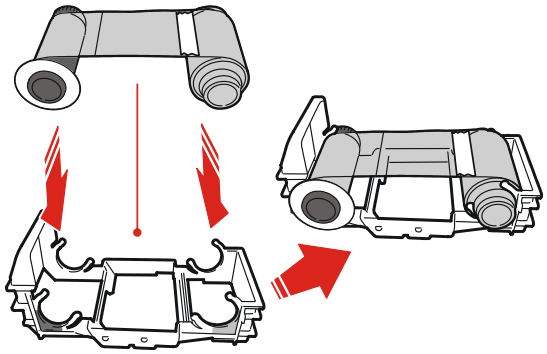
- **Type:** Composite PVC, PET, ABS (varnished)
- **Dimensions:** ISO CR80 - ISO 7810 (53.98 x 85.60)
- **Thickness:** 0.25 to 1.25 mm (10 to 50 mil) manual gauge adjustment
- **Magnetic stripe:** ISO 7811
- **Smart Card Contact:** ISO 7816-1,2,3,4
- **Smart Card Contactless:** ISO 14443A/B.

Installation Procedures

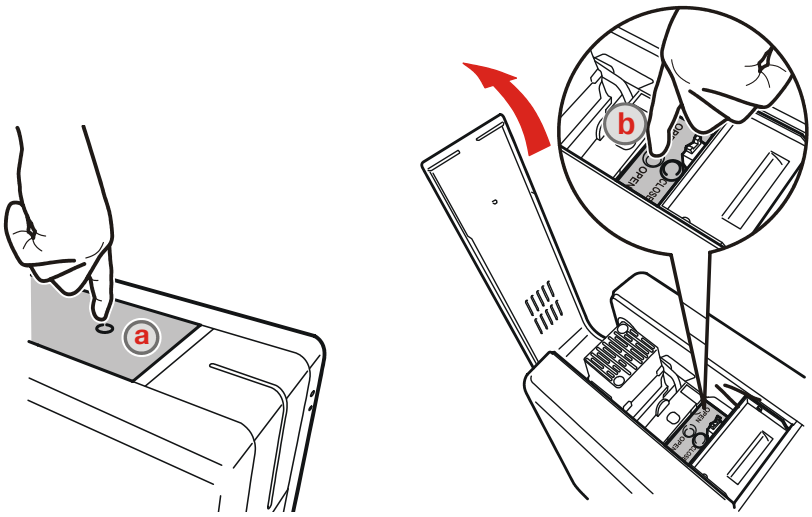
Installing the Ribbon

Original Matica ribbons are to be installed carefully. The ribbon carrier that comes with the printer helps to install the ribbon quickly, easily and accurately. Once the ribbon is in its carrier, the carrier can then be easily dropped into the printer using the yellow guides.

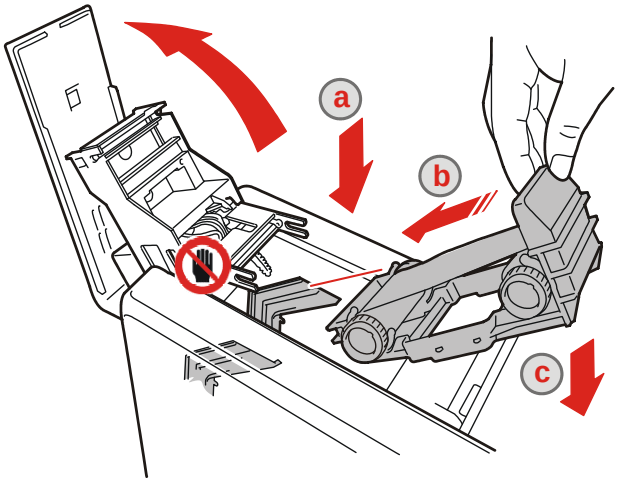
1) Insert the ribbon (not provided with the printer) into the ribbon carrier.



2) Open the printing module compartment cover.

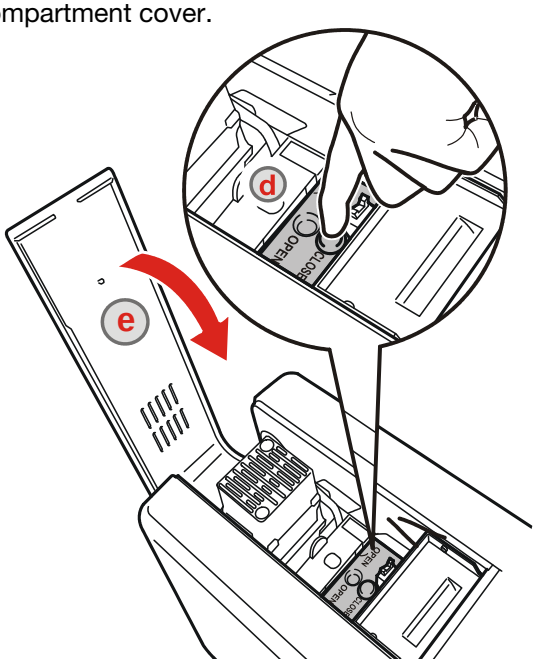


3) Insert the ribbon carrier into the printer, looking for the yellow guides that have the same color as the take-up core.



Note: Keep away from the printhead so as avoid damaging it.

4) Close the printing module compartment cover.



Card Feeding

The input Hopper (automatic card feeder) can hold a maximum of one hundred 0.76 mm thick cards. A label inside the door gives the instructions for correctly positioning and orienting the card.

When the single card manual feeder option is present, it can be used without needing to empty the input Hopper.

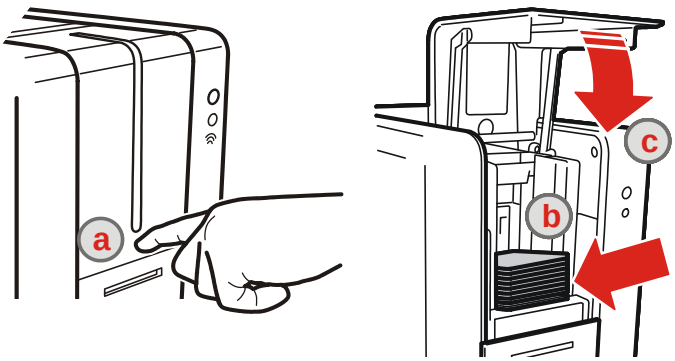
The card path can be selected via software to speed card processing:

- *Hopper*
- *Reject bin.*

The output Hopper at the front of the printer can hold a maximum of eighty or thirty 0.76 mm thick cards depending on whether the manual feeder option is present for the Moca model.

Input Hopper (Automatic Card Feeder)

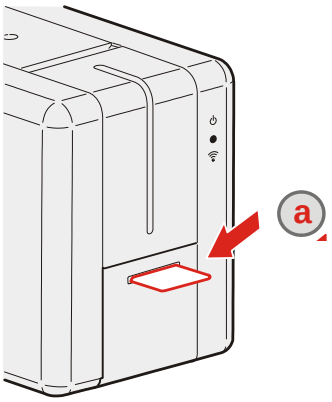
1) Open the Hopper door on the operator panel by pressing at point (a) indicated in the figure below. Load the cards in the Hopper (b) and then close the door.



Front Slot (Manual Card Hopper)

The manual card feeder is always ready for use and is prioritized. It is suggested that it be used when the job requires a card that different than the ones loaded in the input Hopper.

1) Insert the card into slot (a) indicated in the figure below.

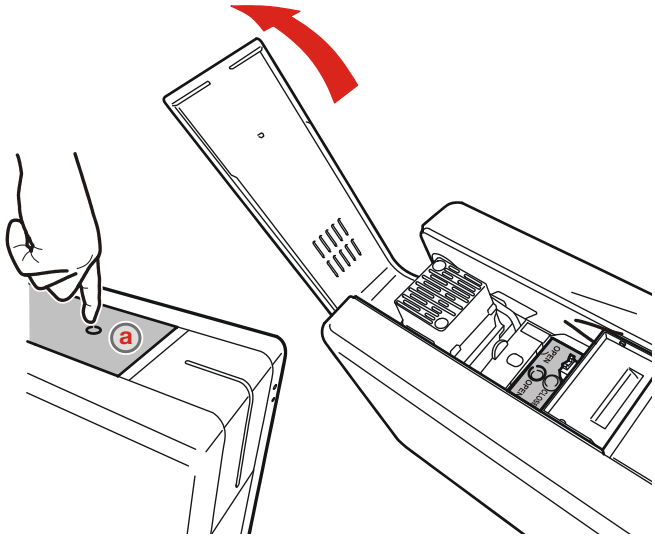


Adjusting the Card Thickness

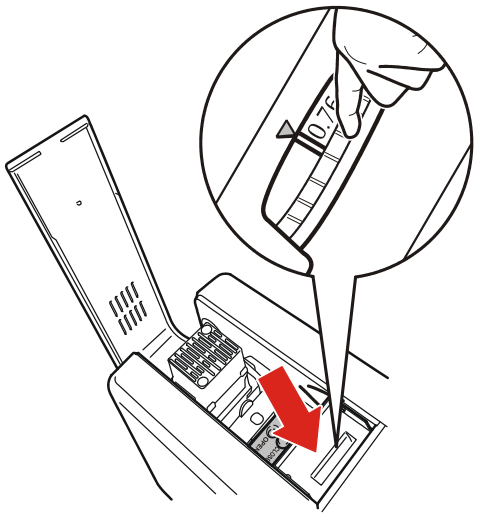
The card thickness can be adjusted using the wheel inside the input Hopper.

Cards with thicknesses ranging between 0.25 mm and 1.25 mm (10 - 50 mil) can be processed by the printer. Proceed as follows to adjust the card thickness:

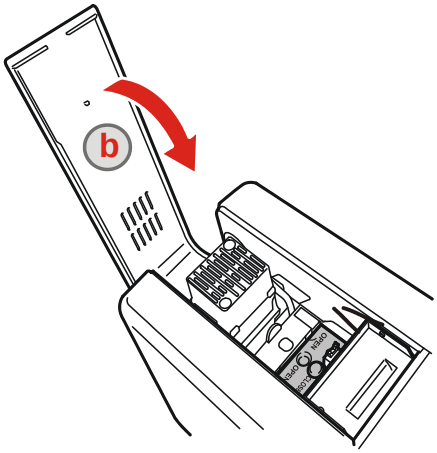
1) Open the printing module compartment cover.



2) Rotate the green wheel until the arrow points to the thickness of the card to be printed.

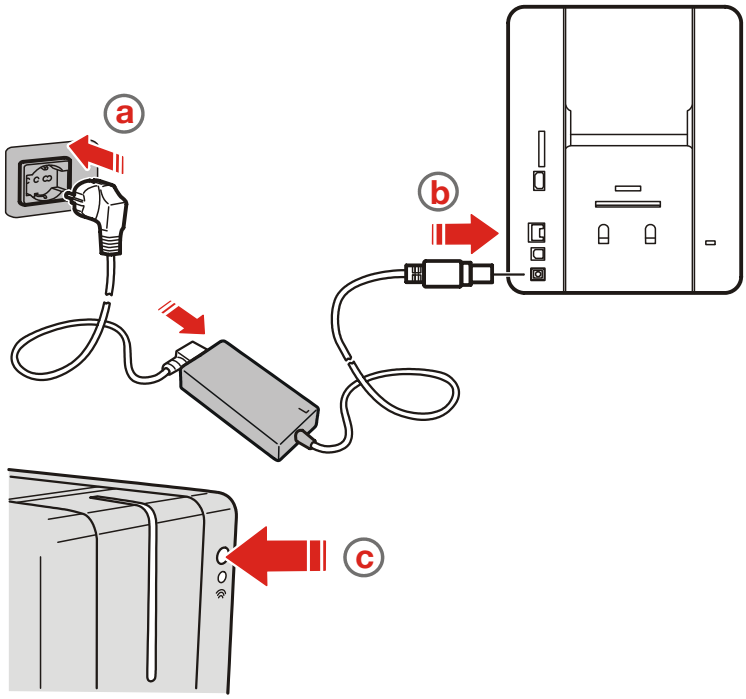


3) Close the printing module compartment cover.



Connecting the Power Supply and Powering ON the Printer

Connect the power cord to the power outlet, to the power supply and then connect the power supply to the printer as shown below. Press the ON/OFF button to power on the printer.



Installing the Software and Configuring the Printer

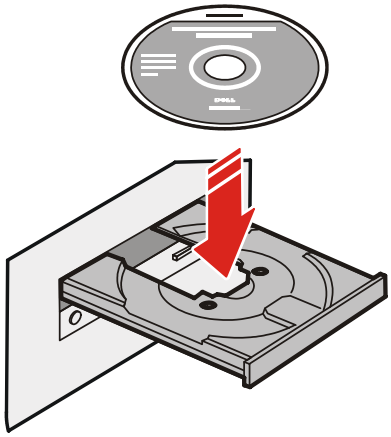
The CD-ROM that comes with the printer contains the following:

- Windows Vista, Seven, Win8, Win 8.1 (32 and 64 bit) printer driver for USB, Ethernet LAN and Wireless connections (if supported by the purchased model)
- Printer Manager application
- PDF User Guide.

Connecting the Printer to the Computer and Installing the Software

1) Power on the computer and then insert the CD-ROM into the drive. Follow the instructions displayed by the setup program.

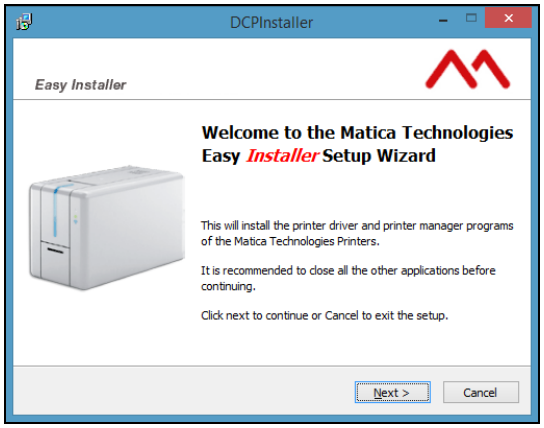
Note: Do not connect the printer yet; the setup program will instruct when to do so.



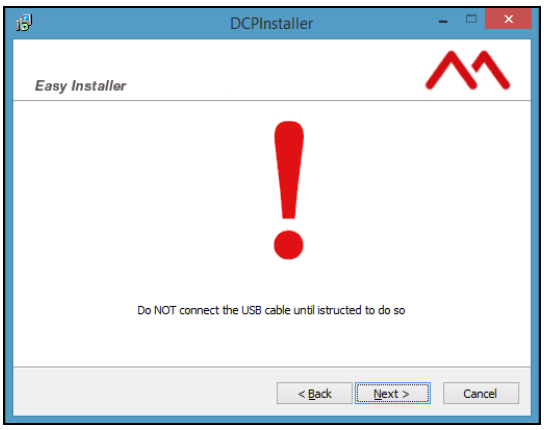
2) The setup program residing on the CD-ROM executes automatically and the following screen is displayed:

Note: If the setup program does not execute automatically, execute it manually as follows:

- Select System resources
- Select the CD-ROM/DVD drive
- Double click the Setup program.


DCPInstaller
Easy Installer
Welcome to the Matica Technologies
Easy Installer Setup Wizard
This will install the printer driver and printer manager programs of the Matica Technologies Printers.
It is recommended to close all the other applications before continuing.
Click next to continue or Cancel to exit the setup.
Next >
Cancel

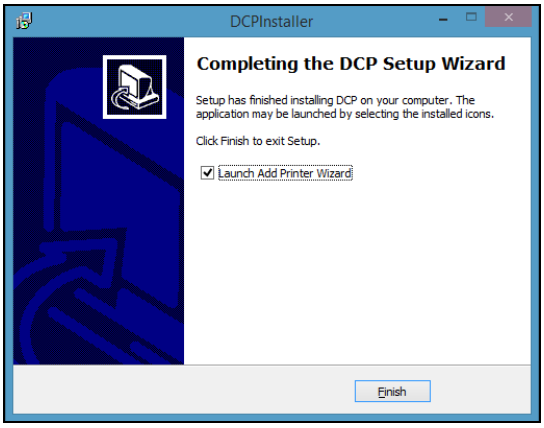
3) Click “I accept the agreement” to accept the license agreement and then click **Next**. The following screen is displayed.



4) Click **Next** to continue. The setup program will request for the destination folder into which the installation files will be stored (the amount of disk space required for the installation is indicated on the bottom of the screen).

5) Click **Next** to continue. The request for program usage privileges is now displayed. Choose between **For all users** and **For the current user only** and then click **Next** to continue. A screen summarizing the settings just made is displayed.

6) Click **Install** to continue. The following screen is displayed upon completion of the installation procedure:


DCPInstaller
Completing the DCP Setup Wizard
Setup has finished installing DCP on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch Add Printer Wizard
Finish

7) Click **Finish** to continue with the installation. The connection mode screen is displayed.

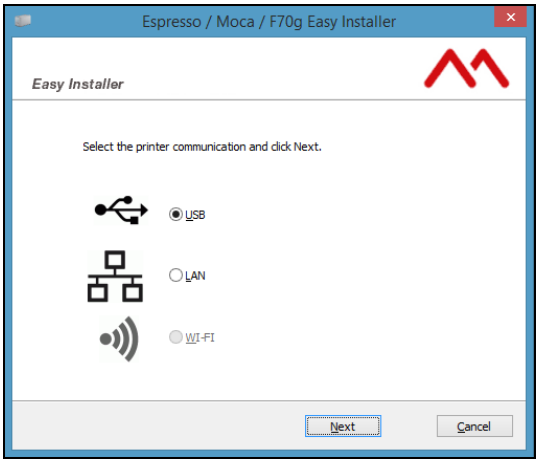
The installation program automatically executes the **Launch Add Printer Wizard** by means of which the type of printer connection can be selected. The possible choices are USB, Ethernet/LAN and Wireless (WiFi).

Note: If **Launch Add Printer Wizard** check box is deselected, the Add Printer Wizard can still be executed manually from **Start > Programs > Matica**.

Add Printer Wizard Program Communication

When the CD-ROM software installation is complete, a help Wizard is displayed for configuring the connection mode to be used.

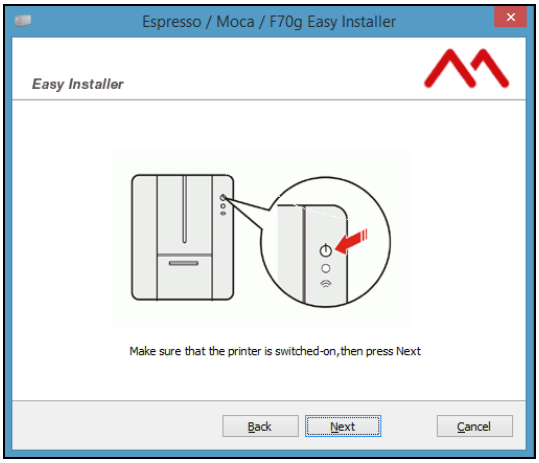
Note: Connection setup can be changed at any time by activating the Wizard mode from the Print Management Program.



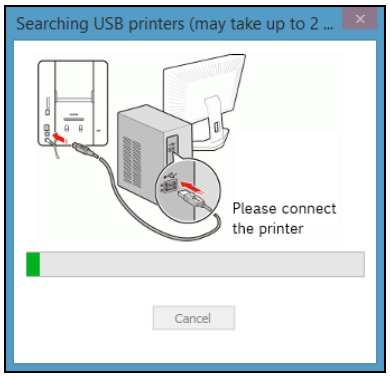
Choose the type of connection required and proceed with its installation.

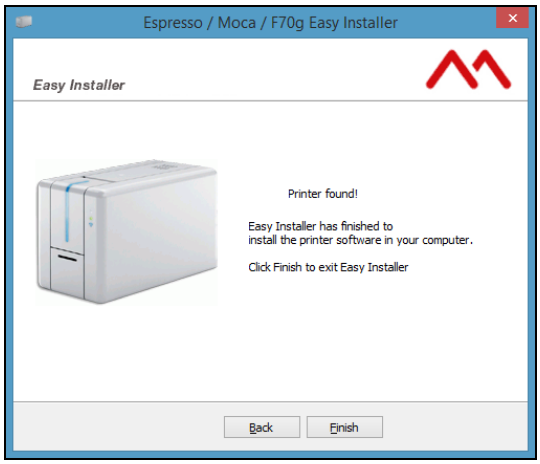
USB Connection

Click the **USB** radio button on the Printer Wizard Program screen and then click **Next**. The following screen is displayed:



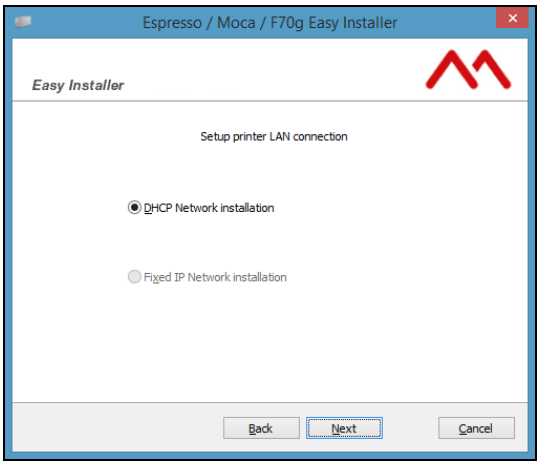
Click **Next** and wait for the configuration software to recognize the printer and display a message indicating that the installation was completed successfully.




Espresso / Moca / F70g Easy Installer
Easy Installer
Printer found!
Easy Installer has finished to install the printer software in your computer.
Click Finish to exit Easy Installer
Back
Finish

Ethernet (LAN) Connection using DHCP

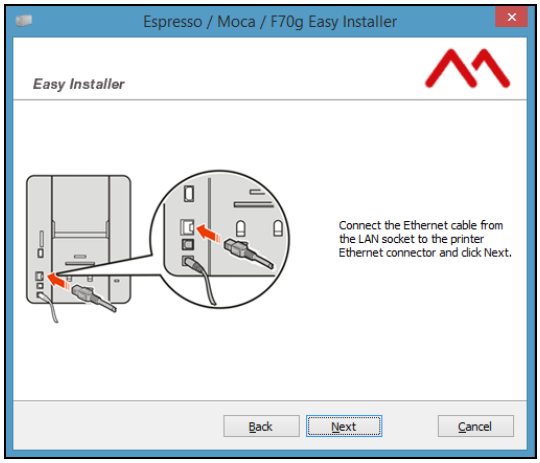
Click the **LAN** radio button on the **Add Printer Wizard** Program screen. The following screen is displayed:



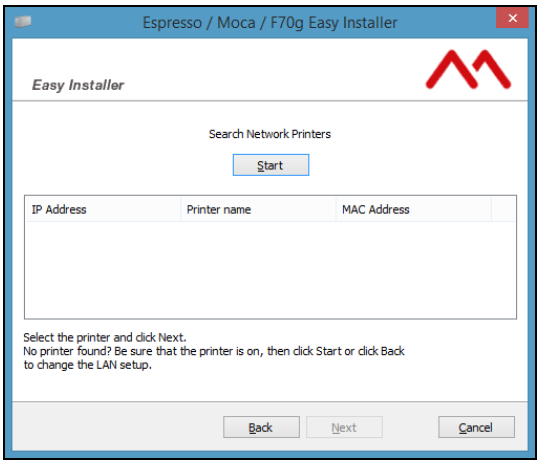
Choose the LAN connection required, selecting either DHCP supplied automatically by the network server or manual insertion on the basis of specific requirements, then click **Next**.

Note: For more information regarding a specific company network, ask the network administrator. The automatic selection DHCP Network Installation is suggested for the more common installation types.

The following screen is displayed:

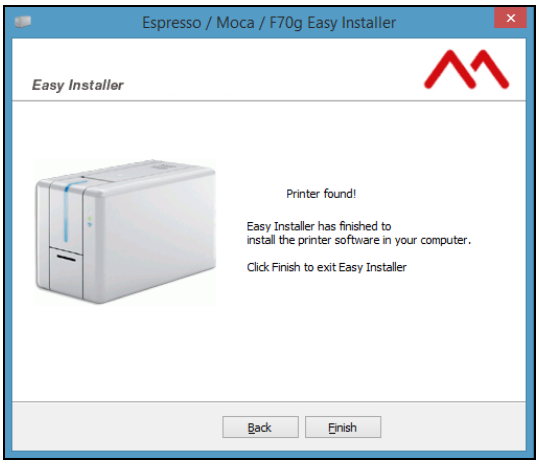

Espresso / Moca / F70g Easy Installer
Easy Installer
Connect the Ethernet cable from the LAN socket to the printer Ethernet connector and click Next.
Back
Next
Cancel

Attach the network cable to the printer and then click **Next**.
The following screen is displayed by the configuration software:


Espresso / Moca / F70g Easy Installer
Easy Installer
Search Network Printers
Start
IP Address
Printer name
MAC Address
Select the printer and click Next.
No printer found? Be sure that the printer is on, then click Start or click Back to change the LAN setup.
Back
Next
Cancel

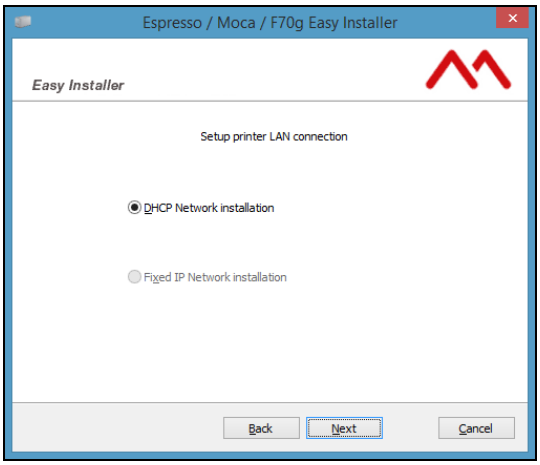
If the printer is not found, click **Start** to search for the network printer and wait until it is found.
Once found, the printer appears in the list of available printers with its related information (IP Address, Printer name, Mac Address).

Click **Next** and wait for the configuration software to identify the printer and to display a message indicating that installation was successful.


Espresso / Moca / F70g Easy Installer
Easy Installer
Printer found!
Easy Installer has finished to install the printer software in your computer.
Click Finish to exit Easy Installer
Back
Finish

Ethernet (LAN) Connection with Fixed IP

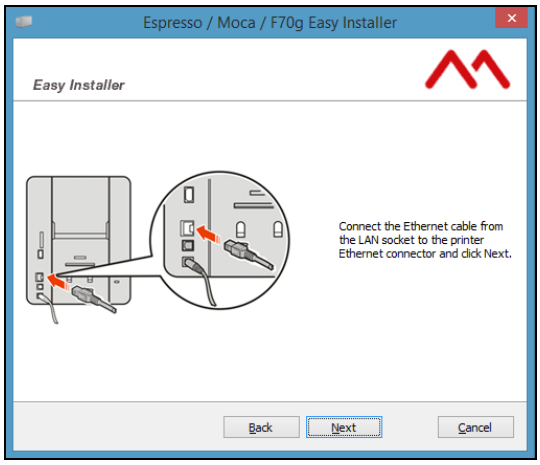
Click the **LAN** radio button on the **Add Printer Wizard** Program screen. The following screen is displayed:



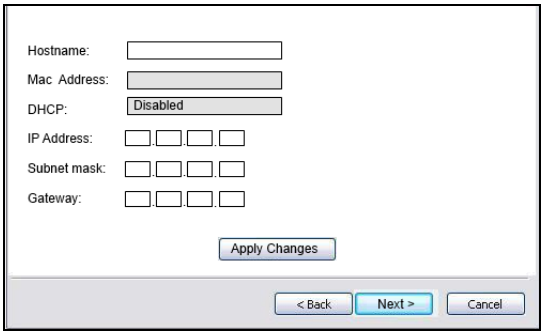
Click the **Fixed IP Network** installation radio button for the manual insertion on the basis of specific requirements, then click **Next**.

Note: For more information regarding a specific company network, ask the network administrator. The manual selection Network Installation is suggested for the more common installation types.

The following screen is displayed:

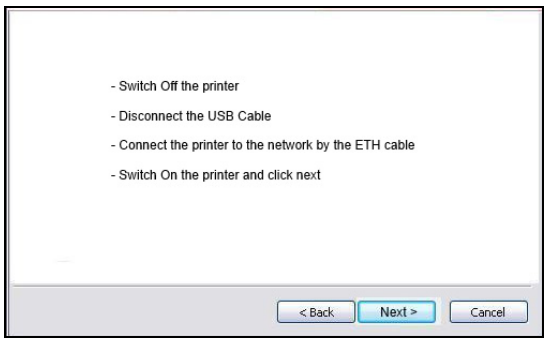

Espresso / Moca / F70g Easy Installer
Easy Installer
Connect the Ethernet cable from the LAN socket to the printer Ethernet connector and click Next.
Back
Next
Cancel

Attach the network cable to the printer and then click **Next**.
The following screen is displayed by the configuration software:



Enter the data required for the manual configuration of the network (if part of a company network, it may be necessary to refer to the network administrator for information).

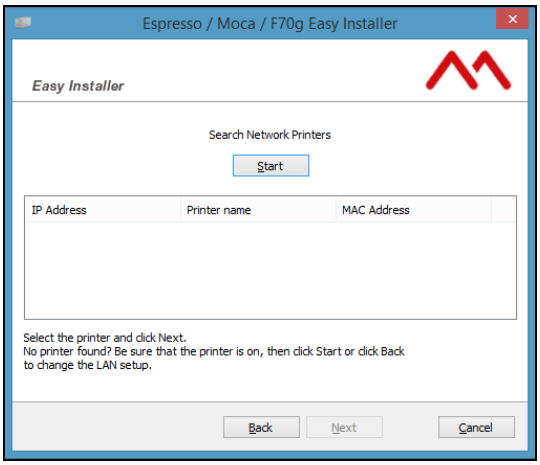
Store the data just entered by clicking **Apply Changes** and then click **Next**. The following screen is displayed:


- Switch Off the printer
- Disconnect the USB Cable
- Connect the printer to the network by the ETH cable
- Switch On the printer and click next
< Back
Next >
Cancel

Follow the instructions displayed:

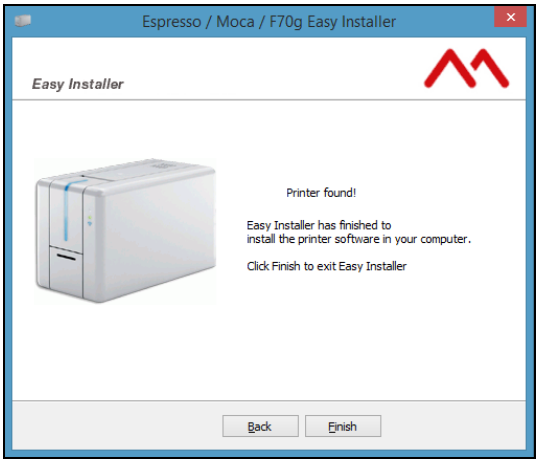
- Power OFF the printer
- Disconnect the USB Cable
- Connect the printer to the network using the LAN cable
- Power the printer back ON again.

Click **Next** upon completion. The following configuration software screen is displayed:


Espresso / Moca / F70g Easy Installer
Easy Installer
Search Network Printers
Start
IP Address
Printer name
MAC Address
Select the printer and click Next.
No printer found? Be sure that the printer is on, then click Start or click Back to change the LAN setup.
Back
Next
Cancel

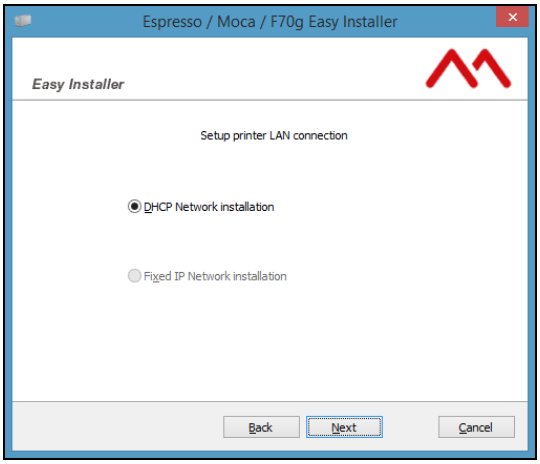
If the printer is not found, click **Start** to search for the network printer and wait until it is found.
Once found, the printer appears in the list of available printers with its related information (IP Address, Printer name, Mac Address).

Click **Next** and wait for the configuration software to identify the printer and to display a message indicating that installation was successful.


Espresso / Moca / F70g Easy Installer
Easy Installer
Printer found!
Easy Installer has finished to install the printer software in your computer.
Click Finish to exit Easy Installer
Back
Finish

Wi-Fi Connection using DHCP

Click the **WiFi** radio button on the **Add Printer Wizard** Program screen. The following screen is displayed for the search of the SSID wireless connection. Choose the wireless connection available by using the password associated to the WIFI network. The following screen is displayed:



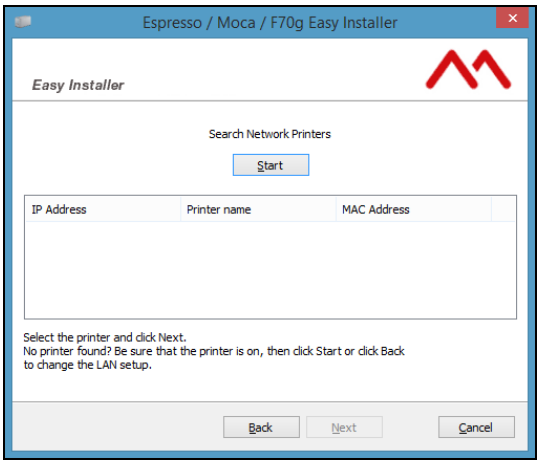
Choose the WIFI connection required, selecting either DHCP supplied automatically by the network server or manual insertion on the basis of specific requirements, then click **Next**.

Note: For more information regarding a specific company network, ask the network administrator. The automatic selection DHCP Network Installation is suggested for the more common installation types.

AVVERTENZA: prima di procedure effettuare la connessione alla rete wireless desiderata, in caso contrario effettuare la connessione all propria rete SSID con la rispettiva password.

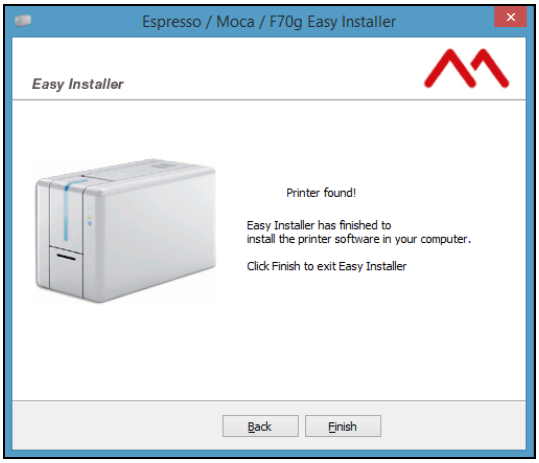
The settings are displayed. They include the name of the wireless network to which the printer is connected and within which the printer to be installed will be searched for.

Click **Next**. The following screen is displayed:


Espresso / Moca / F70g Easy Installer
Easy Installer
Search Network Printers
Start
IP Address
Printer name
MAC Address
Select the printer and click Next.
No printer found? Be sure that the printer is on, then click Start or click Back to change the LAN setup.
Back
Next
Cancel

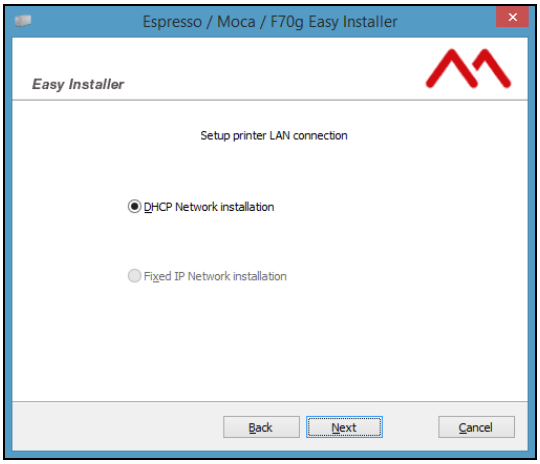
Click **Start** to search for the printer on the network and wait until it is found.
Once found, the printer appears in the list of available printers with its related information (IP Address, Printer model, Mac address).

Click **Next** and wait for the configuration software to identify the printer and to display a message indicating that installation was successful.



Wi-Fi Connection with Fixed IP

Click the **WiFi** radio button on the **Add Printer Wizard** Program screen. The following screen is displayed for the search of the SSID wireless connection. Choose the wireless connection available by using the password associated to the WIFI network. The following screen is displayed:



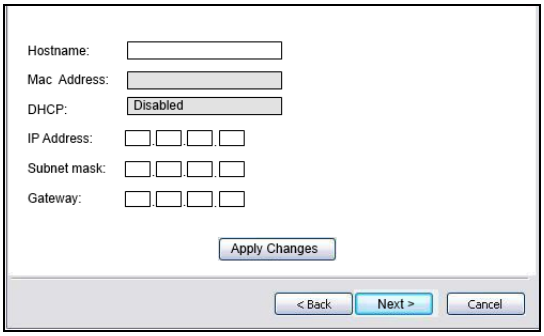
Click the **Fixed IP Wifi Network installation** radio button.
Selecting either DHCP supplied manually by the network server or manual insertion on the basis of specific requirements, then click **Next**.

Note: For more information regarding a specific company network, ask the network administrator. The manual selection DHCP WiFi Network Installation is suggested for the more common installation types.

AVVERTENZA: prima di procedure effettuare la connessione alla rete wireless desiderata, in caso contrario effettuare la connessione all propria rete SSID con la rispettiva password.

The settings are displayed. They include the name of the wireless network to which the printer is connected and within which the printer to be installed will be searched for.

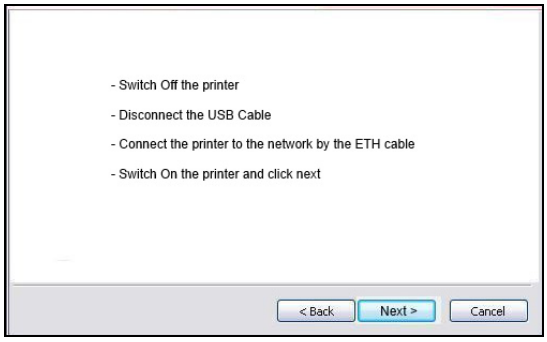
Click **Next**. The following screen is displayed by the configuration software:



Enter the data required for the manual configuration of the network (if part of a company network, it may be necessary to refer to the network administrator for information).

Store the data just entered by clicking **Apply Changes** and then click **Next**.

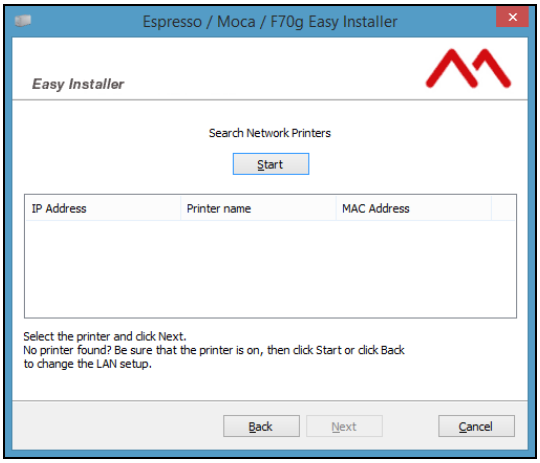
The following screen is displayed:


- Switch Off the printer
- Disconnect the USB Cable
- Connect the printer to the network by the ETH cable
- Switch On the printer and click next
< Back
Next >
Cancel

Follow the instructions displayed:

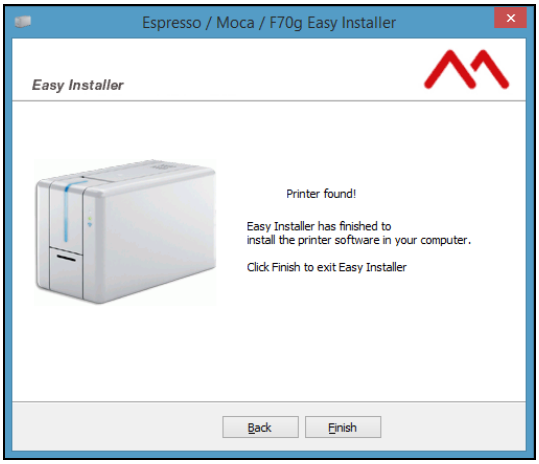
- Power OFF the printer
- Disconnect the USB Cable
- Connect the printer to the network using the LAN cable
- Power the printer back ON again.

Click **Next** upon completion. The following configuration software screen is displayed:


Espresso / Moca / F70g Easy Installer
Easy Installer
Search Network Printers
Start
IP Address
Printer name
MAC Address
Select the printer and click Next.
No printer found? Be sure that the printer is on, then click Start or click Back to change the LAN setup.
Back
Next
Cancel

If the printer is not found, click **Start** to search for the network printer and wait until it is found.
Once found, the printer appears in the list of available printers with its related information (IP Address, Printer name, Mac Address).

Click **Next** and wait for the configuration software to identify the printer and to display a message indicating that installation was successful.


Espresso / Moca / F70g Easy Installer
Easy Installer
Printer found!
Easy Installer has finished to install the printer software in your computer.
Click Finish to exit Easy Installer
Back
Finish

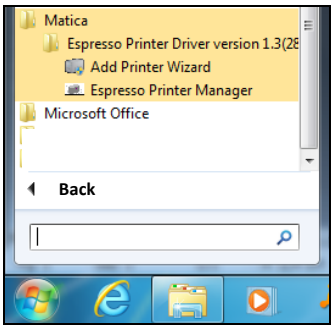
Uninstall Program Tabs

To uninstall the software run the related application in the program group.
Alternatively, use the related utility in the Control Panel, selecting **Install/remove applications** from the list of installed programs.

Matica Printer Manager

Upon successful installation, the following programs are installed on the computer:

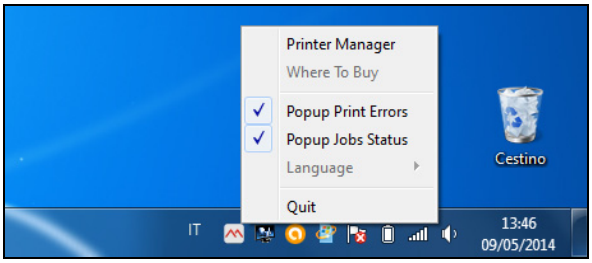
- *All Programs > Matica > Espresso Printer Manager*
- *All Programs > Matica > Add Printer Wizard.*



Using the Printer Manager Instrument Bar with the Mouse

The Windows toolbar includes the Matica application logo that, when clicked, displays a popup window from where the Printer Status can be launched. Left-clicking the related icon on the instrument bar opens the Printer Manager program.

Right-clicking the related icon on the instrument bar opens the Windows menu popup program.

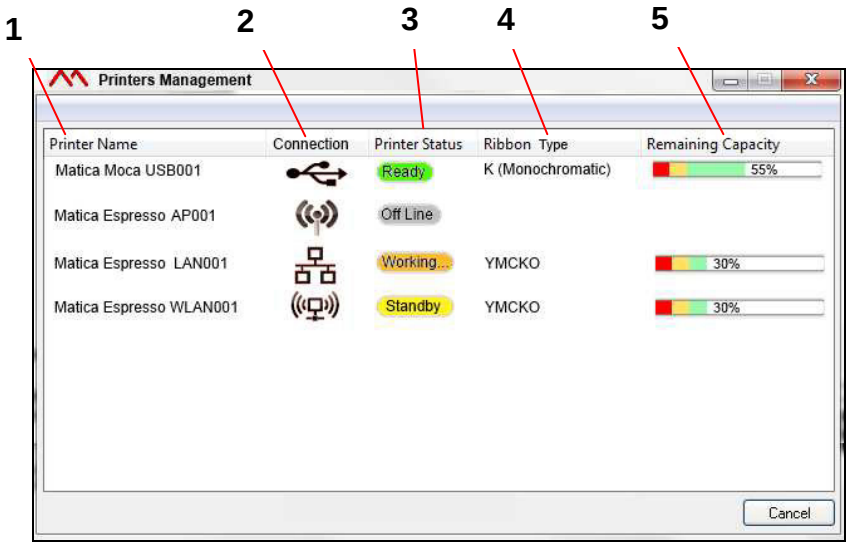


The menu consists of the following:

- **Printer Manager**: Opens the Printer Manager program.
- **Where To Buy**: Opens a web browser with a link to the Matica Technologies commercial website.
- **Popup Print Errors.**
- **Popup Job Status.**
- **Language:** selects the required language.
- **Quit**: closes the program.

Printers Management

The Printers Management window is displayed, as shown below, when the program is executed from the Application bar or from Windows programs.
All the printer drivers installed on the computer are displayed in this window. From here, the Printer Manager can be launched for a given printer by double-clicking on the related printer name.



The following information is available in this window:

1) **Printer Name**: the name of the printer is displayed in this area. The printer name can be defined by the user during the installation; if is not defined by the user, it will be defined from the program during the installation in which case it will be composed of the printer name and the port where it was connected during installation.

   Double clicking the printer name opens the Printer Manager.

2) **Connection**: the following connectivity is supported:

   - USB (Local Connection)
   - WiFi Access Point (Printer Internal Router)
   - LAN (cable)
   - WLAN (WiFi).

3) **Printer Status**: this area can provide the following information:

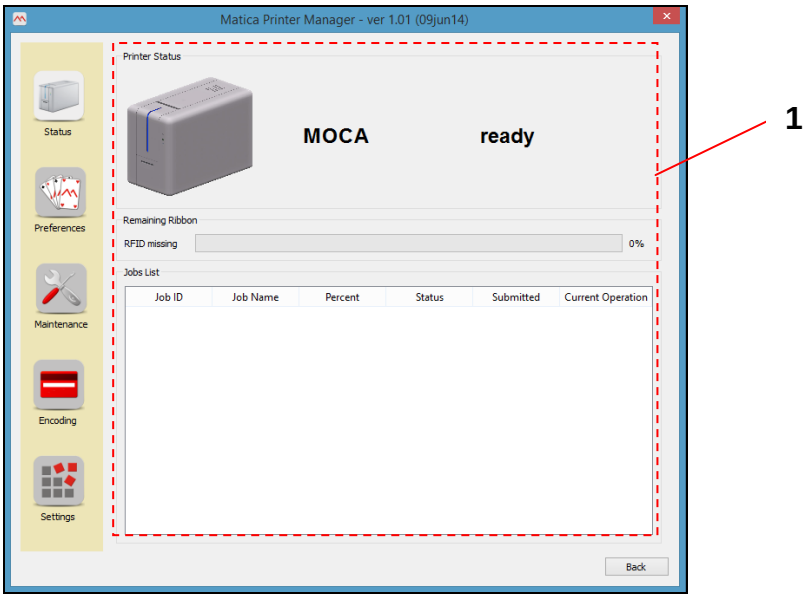
   - Matica Logo or Printer model logo
   - WiFi connection logo; the printer is connected via WiFi
   - Printer status with background color:
     a) **Green**: Ready – Standby
     b) **Light Grey**: Off-line
     c) **Amber**: Job underway – Error (with a brief description of the error)

4) **Ribbon Type**: when the printer is connected, this area indicates the type of ribbon installed in the printer.

5) **Remaining Capacity**: this area indicates how much ribbon is still available. Once a printer is chosen and the Printer Manager is opened after double-clicking on the printer name, the Printer Management window reduces to an icon. To then reopen the Printer Management window, proceed as explained at the beginning of this section.

Printer Manager

Run the Print Manager by double-clicking the Application bar or clicking the printer in the connectivity screen.



1) Information regarding the printer installed, or on its configuration, is displayed in this area. These contents are associated to the icon button displayed on the left hand-side of the window.

The following Printer Manager function icon buttons are provided:

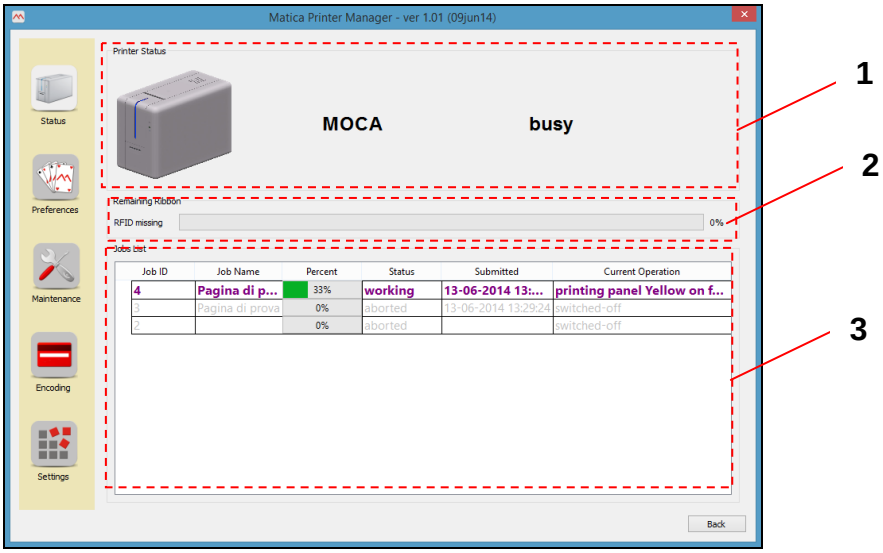
- ***Status Monitor***
- ***Preferences***
- ***Maintenance***
- ***Encoding (only for the models supporting this feature)***
- ***Settings***
- ***Help.***

Click **Back** to return to the printer management window.

Note: The Encoding icon will be displayed only when the Encoding option is available.

Status Monitor

The card settings and printing options can be configured here.



The following information areas are available:

1) Printer Status

2) Ribbon Status

3) Job List.

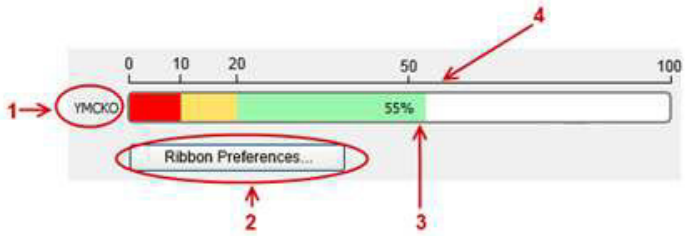
Printer Status Area

The printer status and error or warning messages are displayed in this area.

The possible conditions are: Ready, Busy, Disconnected.

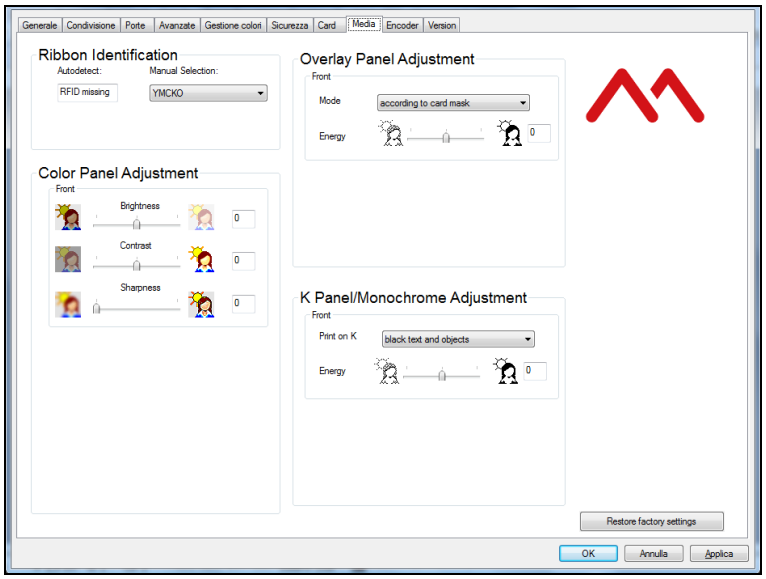
Ribbon Status Area

Ribbon-related information is displayed in this area.



1) Type of ribbon installed.

2) Ribbon Preferences button: click this button to open the printer driver's Media tab from where the ribbon settings can be changed.

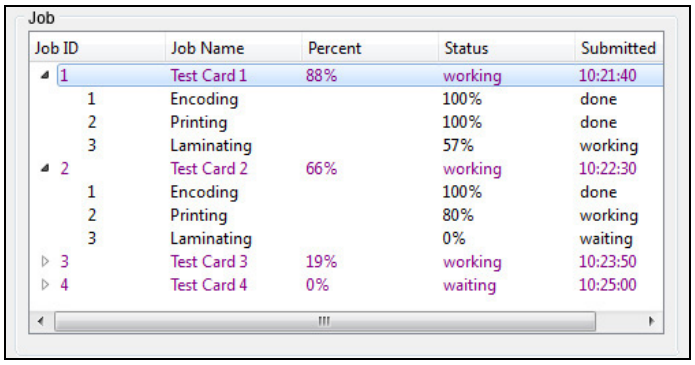


3) Remaining ribbon capacity indicator: this indicator shows a percentage of how much ribbon can still be used.
Indicator color:
- Green: from 100% to 21% remaining
- Yellow: from 20% to 11% remaining
- Red: from 10% to 1% remaining
- Empty bar, flashing: 0% remaining (error condition)

4) Graduate scale representing the percentage.

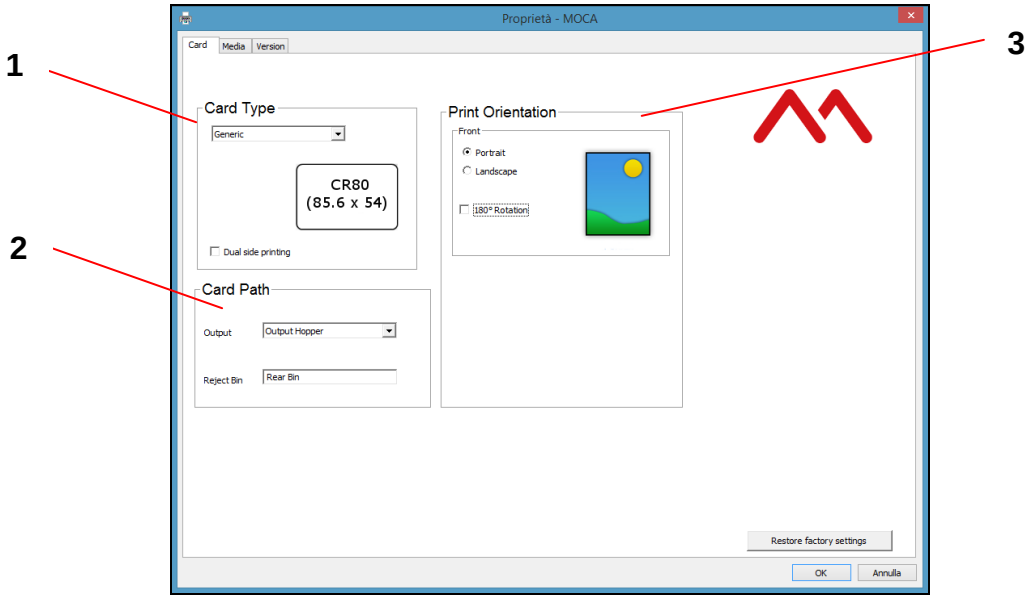
Job Status Area

A job queue is displayed in this area when a printing is underway.



Preferences

Click this button to run the printer driver user interface program from where Printer Preferences and other printer parameters can be set.
It provides a short-cut to the printer driver program without having to exit the Printer Manager. The first tab displayed by default is the Card tab.

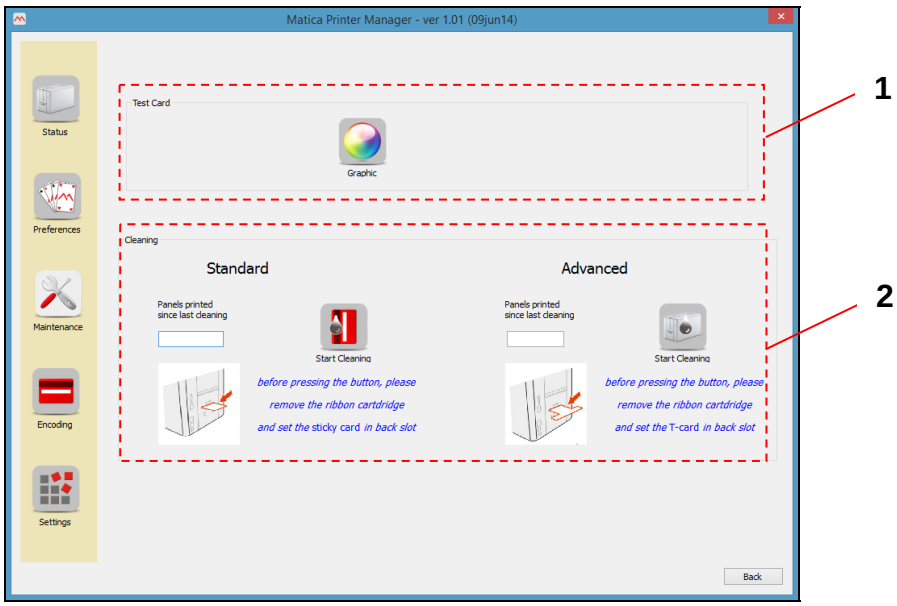


1) Card Type: set the type of card.
2) Card Path: select the output and the reject bin for the card to print.
3) Print Orientation: select the orientation (portrait, landscape, 180° rotation) and the print on both sides.

Click **OK** to store the user settings, click **Restore Default Settings** to clear the user settings and restore the factory default settings.

Maintenance

From this area you can test the print quality using the test card layouts and launch the printer cleaning routine.



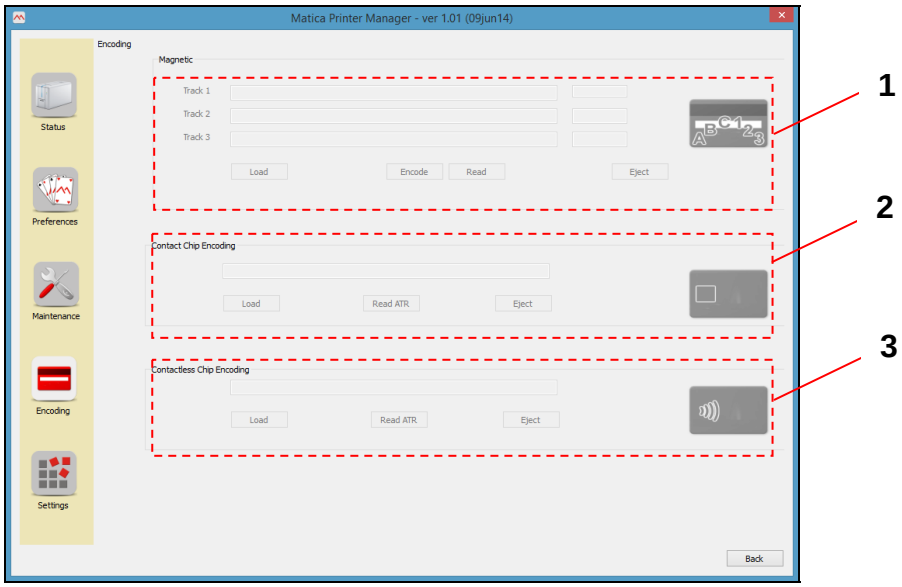
In this environment you can run:

1) **Test Card**, for printing a test card
2) **Cleaning**, for standard or advanced card cleaning

Click on **Back** to return to the Status Printer screen.

Encoding (optional)

If available, this feature enables magnetic encoding and the retrieval of the Smart Card ATR number.



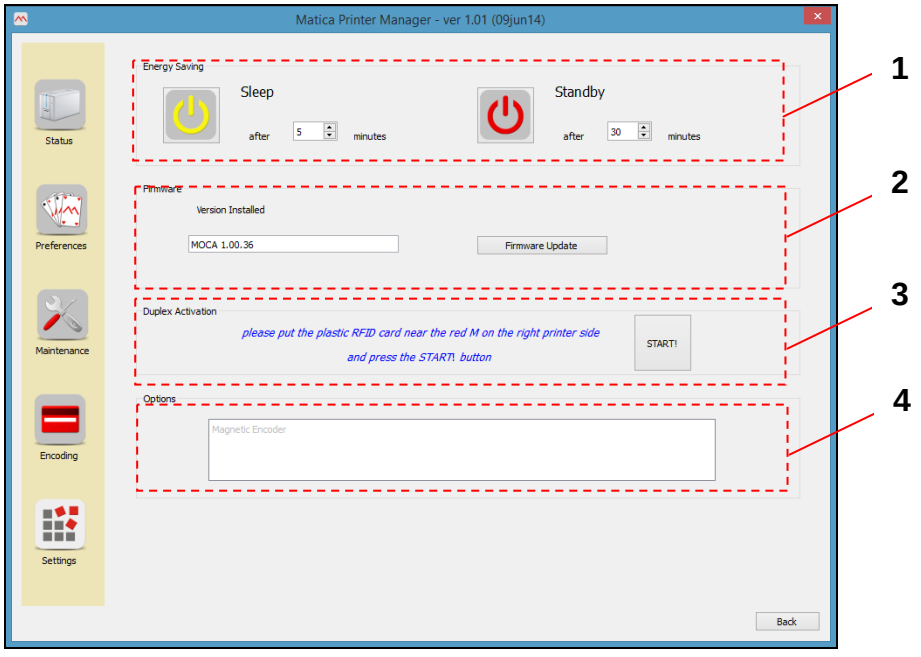
The following can be defined in this area:

1) **Magnetic** encoding
2) **Contact** type parameters
3) **Contactless** parameters.

Note: Refer to Chapter “Encoding option” for more information.

Settings

Options, Connectivity, Energy Savings and Firmware Updates can be configured in this area.
There is also a field for sending escape commands to the printer.

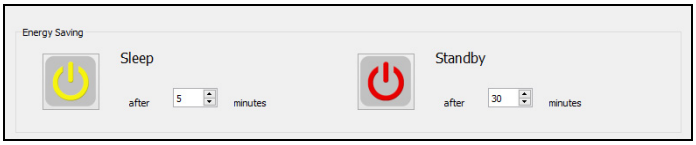


1) **Energy saving** parameters.
2) **Firmware** parameters.
3) **Duplex activation** settings.
4) **Options** installed on the printer.

Click **Back** to return to the Printer Status screen.

Energy Saving

Set the energy saving features in this area.
Selecting or deselecting the Enable Energy Saving check box enables or disables, respectively, the Energy Saving area. When disabled, the default timing is set by the FW to 5 minutes and is displayed in grey. (Default: Enabled).



Sleep
Selecting or deselecting the Enabled check box enables or disables, respectively, the Sleep feature.

If Sleep is disabled, Standby mode also is disabled, and therefore the sleep time is set to the factory default value of 5 minutes. To set the time field when Sleep is enabled, set the value using the sidebar arrow buttons or enter the value directly. The selectable range is from 1 to 240 minutes, in steps of one minute.

Standby
Selecting or deselecting the Enabled check box enables or disables, respectively, the Standby feature.

Standby mode is active only if Sleep mode is enabled. When Standby is enabled, set the time using the sidebar arrow buttons or enter the time directly. The selectable range is from 1 to 1440 minutes, in steps of one minute.
Note: A time less than or equal to the standby time is not allowed.

Updating the Printer Firmware

Open the **Printer Manager Program** and click the **Maintenance** button. The following screen is displayed. The printer firmware can be updated in this area.

The Version Installed field shows the current version of the printer firmware.

Click **Update** to launch the Update Firmware wizard.

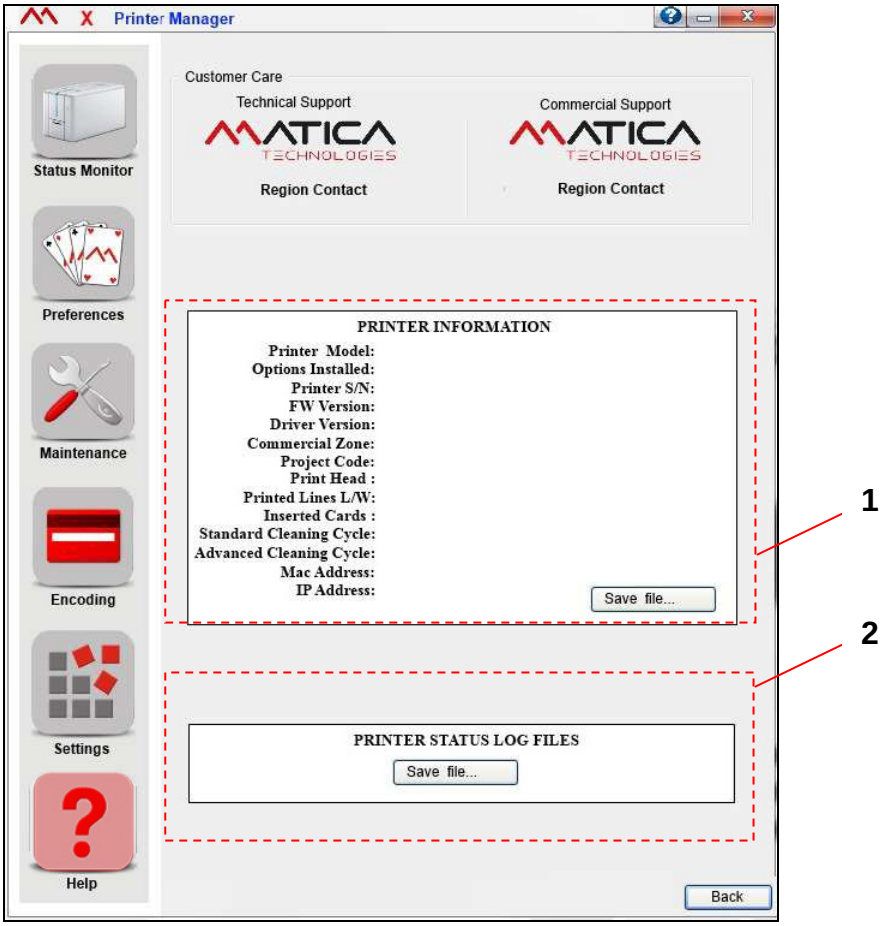
Duplex activation

Two-sided printing can be enabled in this environment (for more information refer to the documentation provided with the option).

Options

Options Installed: Codes of the options installed.

Help



1) Printer information area.

2) Printer status log files.

Click **Back** to return to Windows.

Printer Information Area

This area provides all the technical information related to the printer:

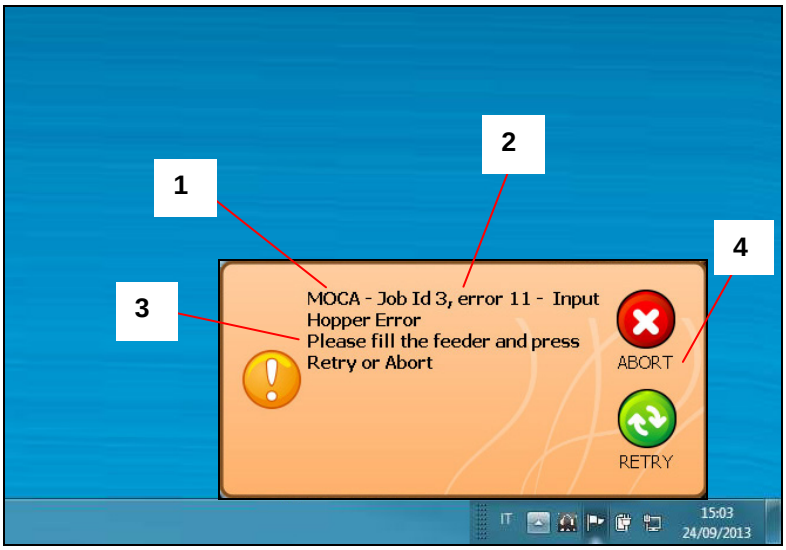
- Printer Model: Commercial name of the printer
- Options Installed: Codes of the options installed.
- Printer S/N: Printer Serial Number
- FW Version: Firmware version currently installed on printer
- Driver Version: Firmware version currently installed on the computer
- Commercial Zone: Regional code
- Project Code: OEM project code
- Printhead S/N: Printhead Serial Number
- Printed Lines L/W: Number of lines printed
- Inserted Cards: Number of cards inserted
- Standard Cleaning Cycle: Number of standard cleaning cycles executed.
- Advanced Cleaning Cycle: Number of Advanced cleaning cycles executed.
- Mac Address: printer Mac address
- IP Address: IP Address if printer is connected via network.
- O.S.: Computer's Operating System
- Click **Save pdf file** to save the printer information to a PDF file.

Printer Status Log files

Click **Save File** to save to the computer a file containing the last printer log information.

Printer Status Pop-up

The Printer status pop-up consist of a card window containing several areas that the software compiles in real time every time the pop-up needs to be displayed.



1) **Printer Name area**: the printer's default name or its name assigned during installation is displayed in this area.
2) **Status Description area**: the error code or error description is displayed in this area.
3) **Status Solution Area:** the troubleshooting message related to the error detected and displayed in the Status Description Area, is displayed here.
4) **Utility Command Bar:** displayed only when the Pop-up is static and user intervention is required. The status error table describes how the utility bar is managed.

   a-

button: click to resend a print job once an error condition is cleared. Clicking this button causes the pop-up to disappear; if the error is not cleared the pop-up will be redisplayed.

   b-

button: click to remove a print job from the printer and spooler. Use this button when the printer needs to be powered off to clear an error condition. Clicking this button causes the pop-up to no longer be displayed.

Printing

Card Printing

Cards are usually printed and encoded by a Printer Application chosen by the User. However, if required, a compatible non-proprietary Application is available as an option for designing and printing cards. Cards can be customized (logo, image and name) by creating graphic images and defining page formats.

The Printer Application recognizes the printer, allowing the User to create fully customized card jobs.

Card Printing Using Word

There are a large number of Windows applications that allow document printing (for example Microsoft Office® suite tools such as MS-Word®, MS-Access®, MS-Excel® and MS-PowerPoint®).

An example is provided below:

Using Microsoft® Word

1) Run the MS-Word application. In the Menu bar, click **File** then **Page Setup**.

2) In the **Paper** tab, select the Paper Size option followed by the custom format 55x85 mm (default format).

3) If using Word 2010/2013: select the **Page Layout** tab. For Size, select Custom format.

4) In the **Margins** tab, set all margins to '0' and select Landscape for the Orientation.

5) Close the window by clicking **OK**.

6) The card can now be customized by adding the various items composing the card:

Logotype, illustrations, Identification photo

Fixed and variable texts

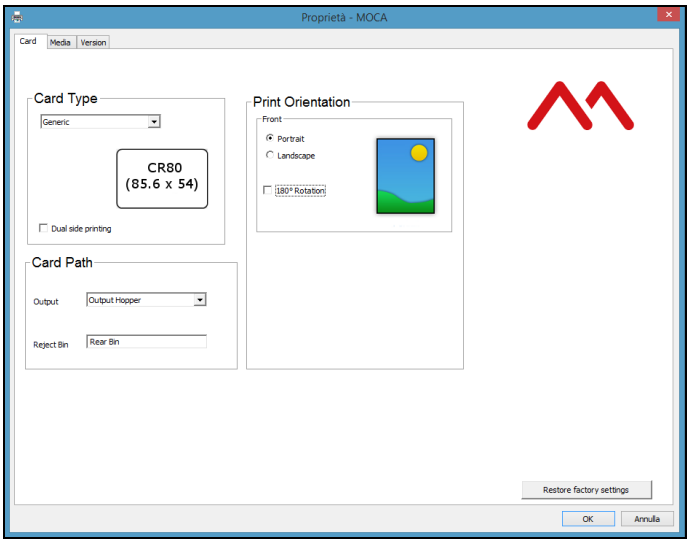
Barcode, etc.

Once the operation is complete, click **File** followed by **Print**.

7) Click **Print** or click on the printer icon. Select Matica printer.

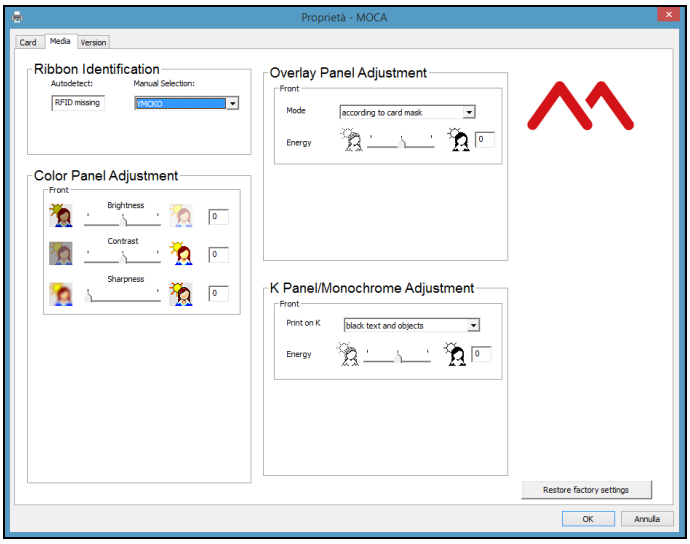
8) Select **Properties** to customise the print options from this screen:

9) Select the **Output** choosing between **Output Hopper** or **Rear Bin**.



9) Click the **Media** tab to configure specific settings such as:

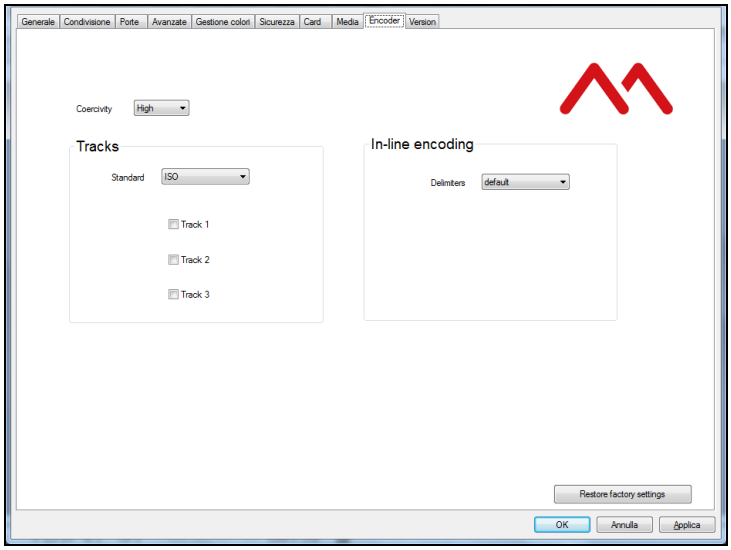
- Ribbon Identification
- Color Panel Adjustment (brightness, contrast, sharpness)
- Overlay Panel Adjustment
- K Panel /Monochrome Adjustment (greyscale, black text, etc..)



Note: If necessary, configure the settings in the Configuration tab to enable use of particular options or additional accessories installed on the printer.

Magnetic Encoder

To print using the Magnetic Encoder, enable these modules on the printer so that the printer driver can use them correctly.



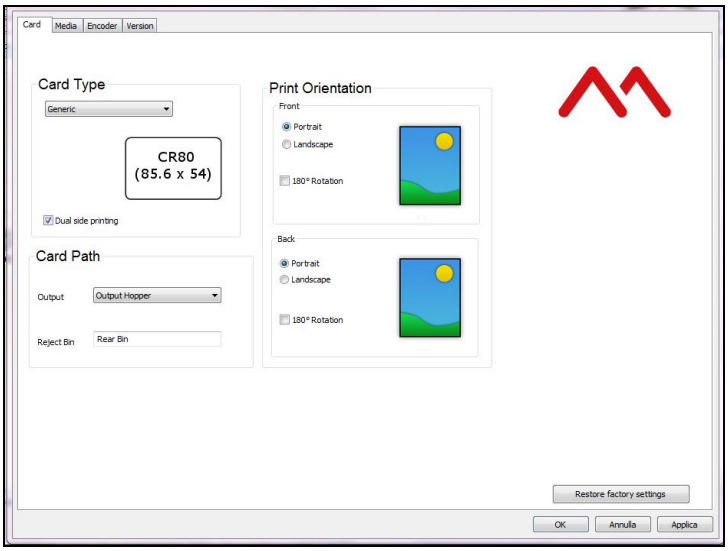
Double-side Printing

1) Selec **Properties** from this screen to customize the printing options:

2) Check the box selection **Dual side printing** for front and back printing.

3) Clic **OK** to store the settings made and print the card.

Note: Two-sided printing is optional (installation of the Duplex Kit is required).



Printer Maintenance

Printer Routine Cleaning

Four different cleaning processes are implemented in the printers.

Standard Cleaning

Suggested frequency:

- *Color printing: Each time the ribbon is changed*
- *Monochrome printing: every 250 cards printed.*

Mandatory frequency (to prevent voiding the warranty)

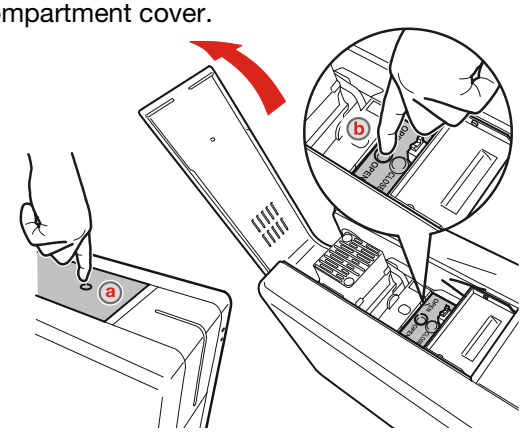
- *Every 1,000 cards printed.*

Standard cleaning is performed using the specific cleaning card as explained below.

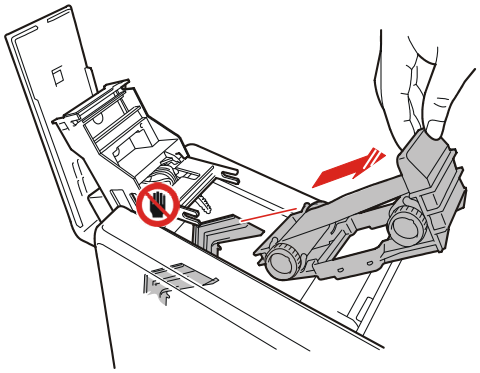
The product has an internal counter that keeps track of the number of cards printed and warns the user when the mandatory cleaning procedure must be performed.

Standard Cleaning Procedure

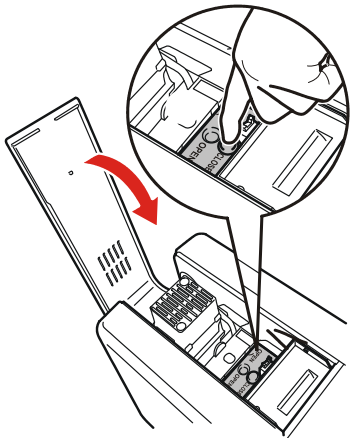
1) Open the printing module compartment cover.



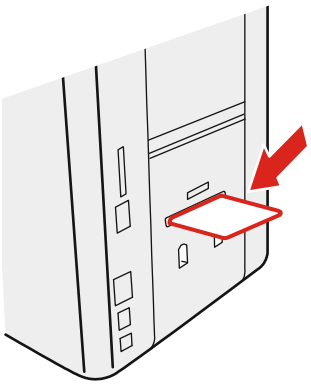
2) Remove the ribbon carrier.



3) Close the printing module compartment cover.

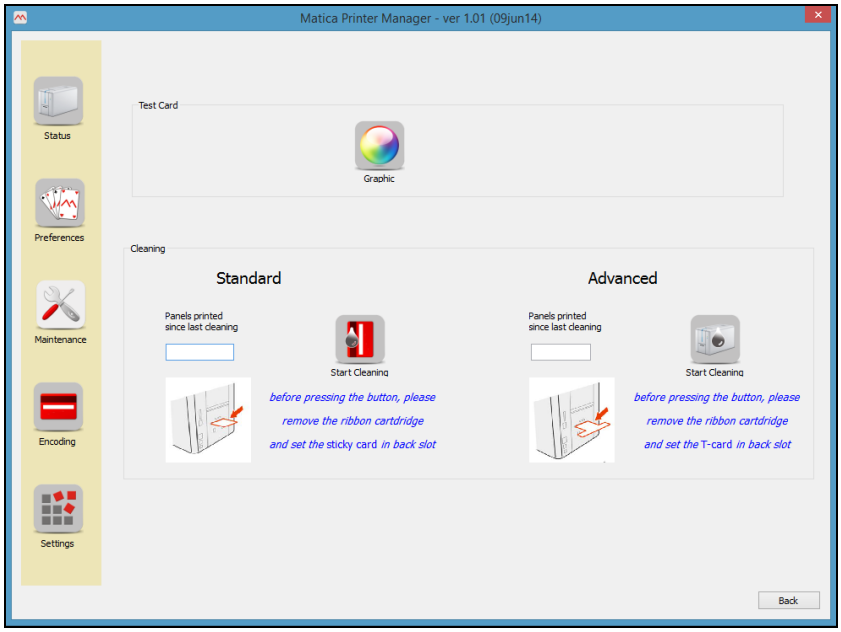


4) Insert the cleaning card in the rear slot of the printer.

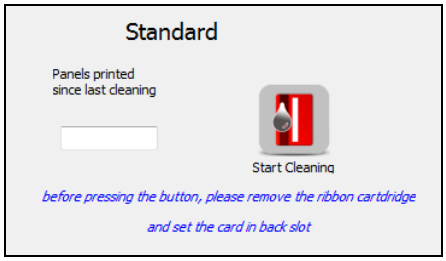


5) Open the **Printer Manager** and click the **Maintenance** button.

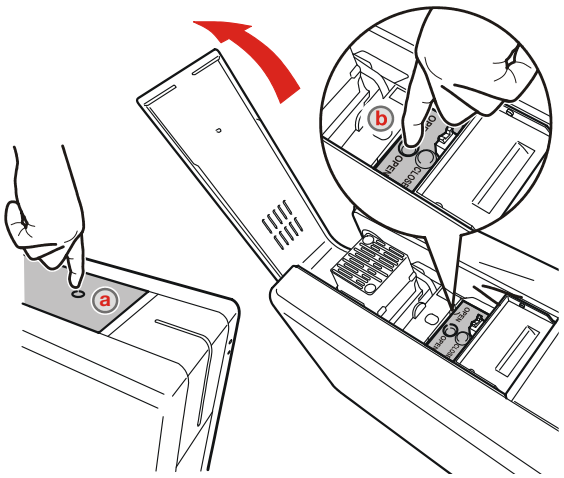
The Maintenance window is displayed.



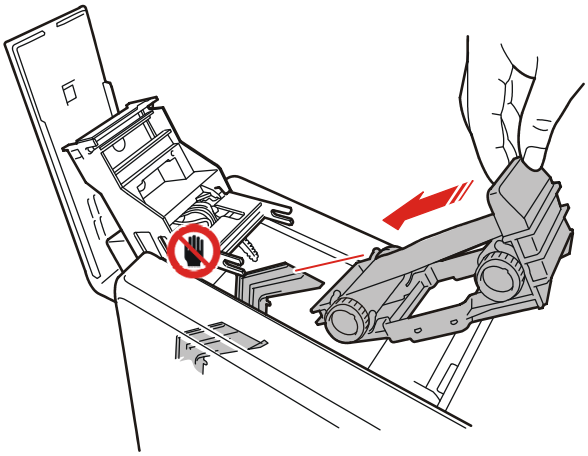
6) The counter indicates the number of cards that have been printed starting from the last cleaning operation performed.
Click the **Standard Cleaning button** to start the cleaning procedure.
Once the cleaning procedure is completed, the card is ejected from the rear slot and the counter is reset.


Standard
Panels printed since last cleaning
Start Cleaning
before pressing the button, please remove the ribbon cartdridge and set the card in back slot

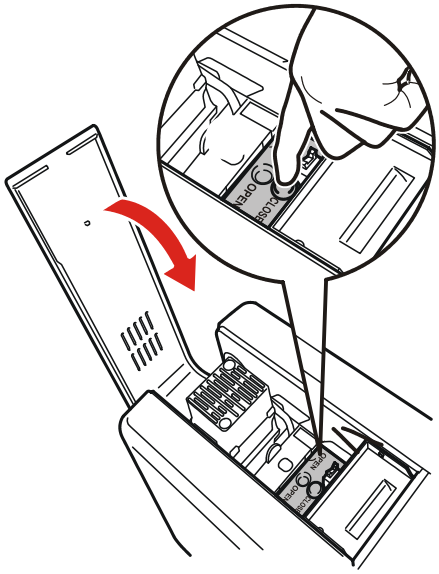
7) Open the printing module compartment cover.



8) Insert the ribbon carrier.



9) Close the printing module compartment.



10) The Standard cleaning procedure is terminated and the printing counter is reset to zero.

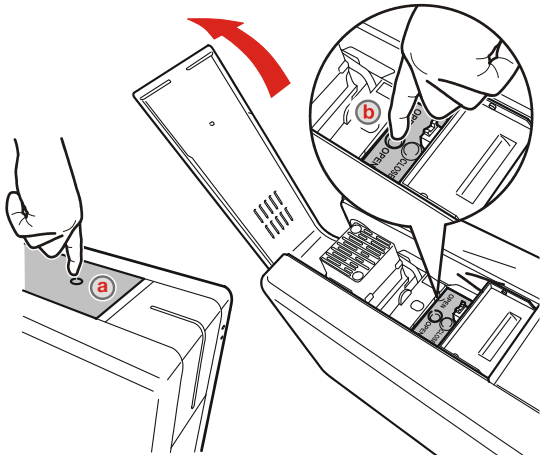
Card Path Advanced Cleaning

The card path advanced cleaning procedure is required after performing five Standard cleaning procedures:

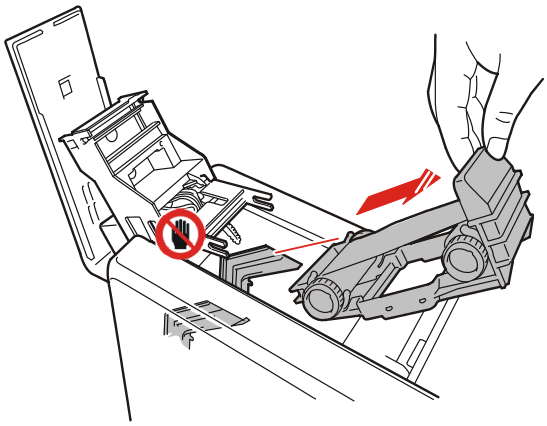
- The special (alcohol impregnated) T-card must be used.
- The procedure involves cleaning the card path, removing the dust on the rollers and cleaning the magnetic head.
- The printer has an internal counter that stores the number of Standard cleaning procedures performed, so as to notify when the Advanced Cleaning procedure is required (see the Printer Manager Specifications).
- A software-guided procedure will assist in carrying out the cleaning operations.

Advanced Cleaning Procedure

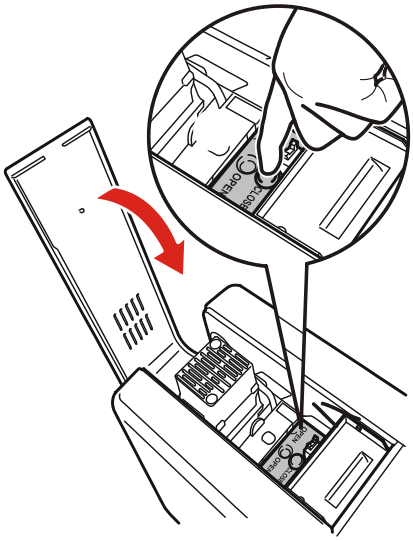
1) Open the printing module compartment cover.



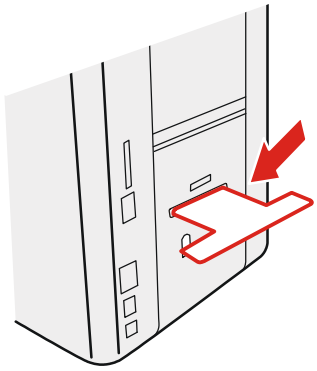
2) Remove the ribbon carrier.



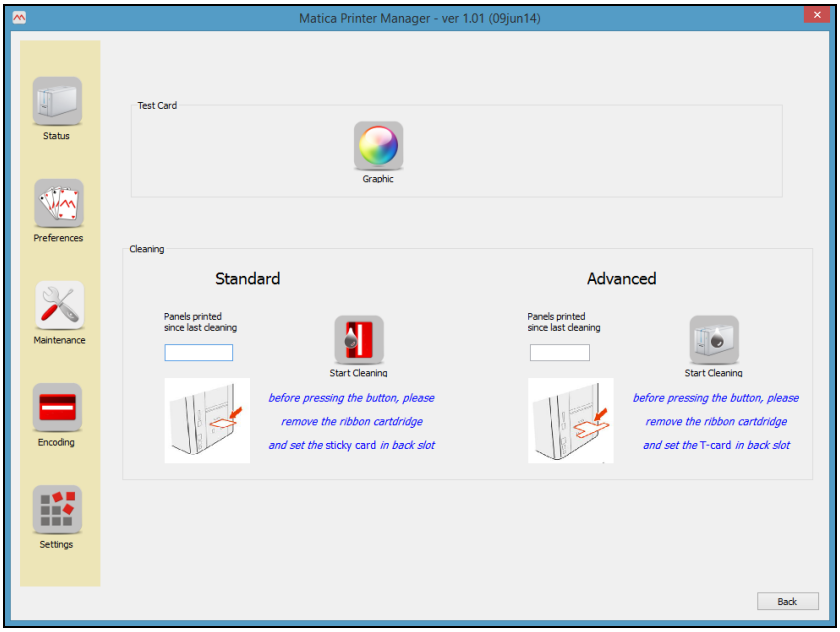
3) Close the printing module compartment cover.



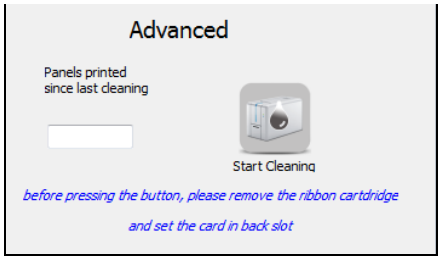
4) Insert the cleaning card into the rear slot of the printer.



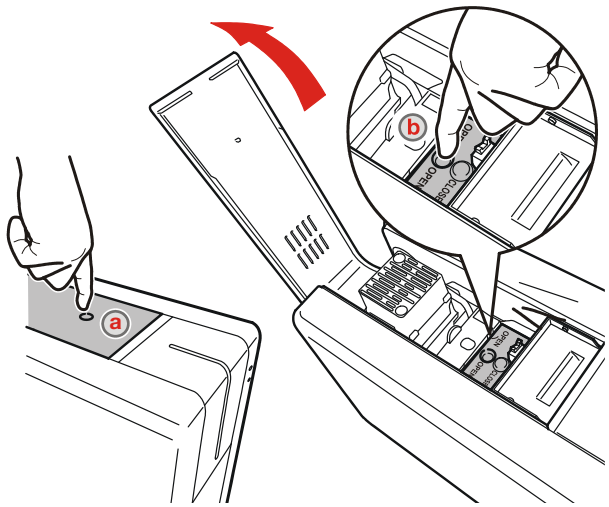
5) Open the **Printer Manager** and click the **Maintenance** button. The Maintenance window is displayed.



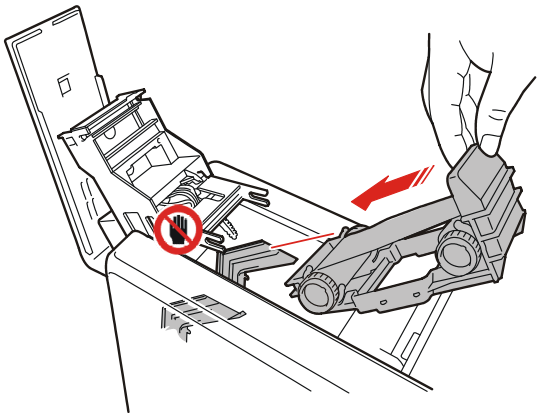
6) The counter indicates the number of cards that have been printed starting from the last cleaning operation performed.
Click the **Advanced Cleaning button** to start the cleaning procedure.
Once the cleaning procedure is completed, the card is ejected from the rear slot and the counter is reset.


Advanced
Panels printed since last cleaning
Start Cleaning
before pressing the button, please remove the ribbon cartdridge and set the card in back slot

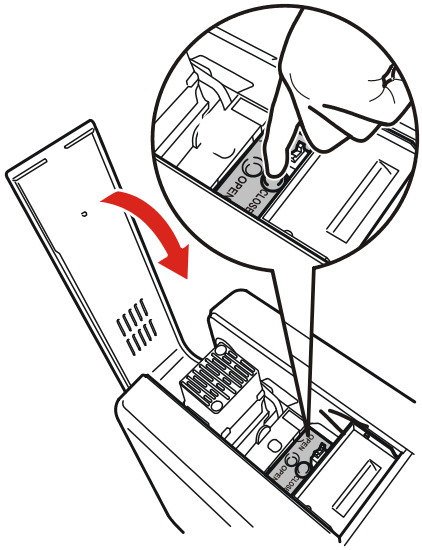
7) Open the printing module compartment cover.



8) Insert the ribbon carrier.



9) Close the printing module compartment cover.



10) The advanced cleaning procedure is now concluded and the printing counter is reset to zero.

Cleaning Roller Advanced Cleaning

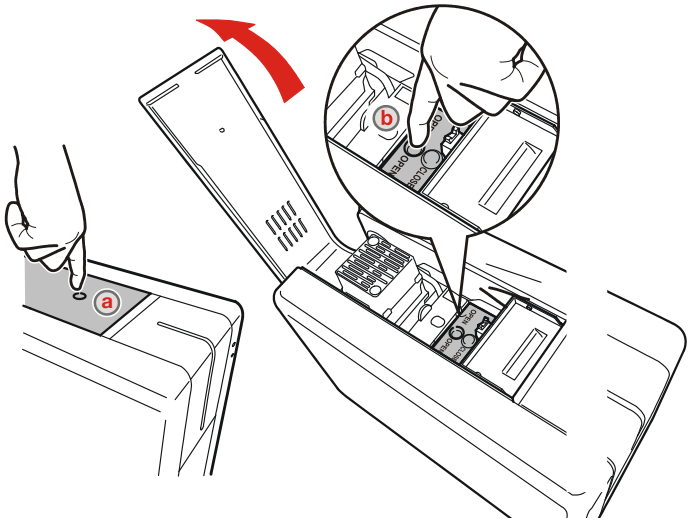
It is suggested to perform an Advanced cleaning of the cleaning roller when the Standard cleaning procedure does not efficiently remove all the dust from the cleaning roller:

- It is performed using a special tool to be inserted into the printer
- The cleaning roller must be cleaned to prevent dust from entering the printer so as to protect the printhead ceramic
- A software-guided procedure will assist in carrying out the cleaning operations.

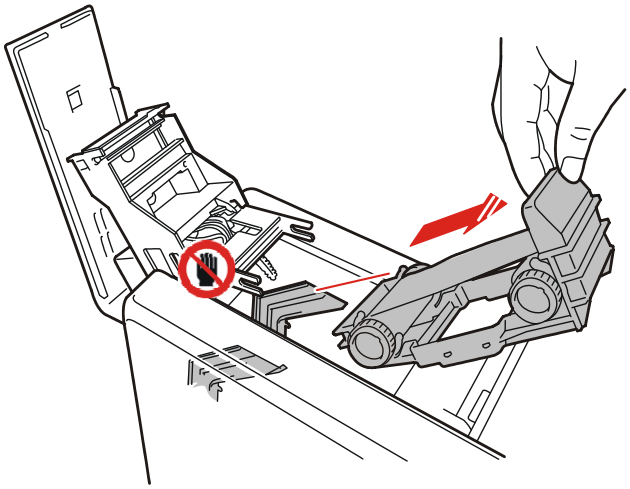
Roller Cleaning Procedure

1) Unplug the printer from the power supply.

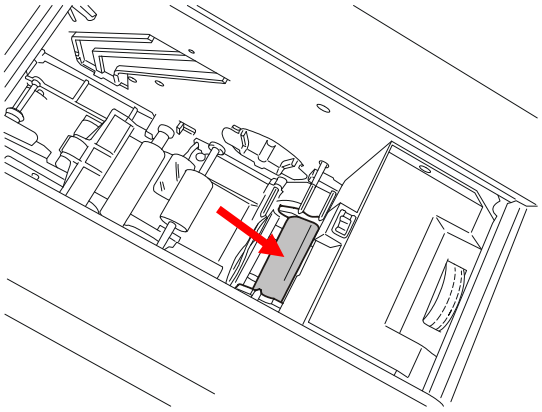
2) Open the printing module compartment cover.



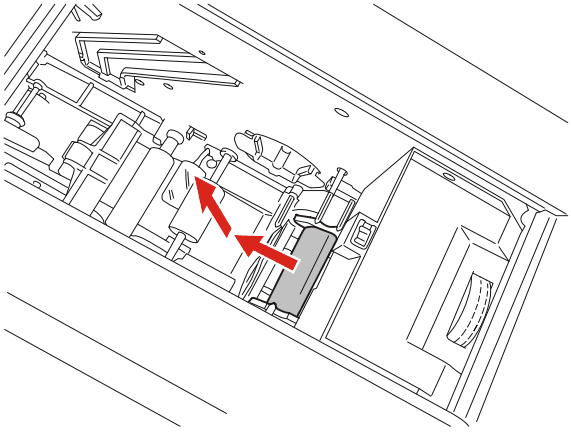
3) Remove the ribbon carrier.



4) Identify the roller.

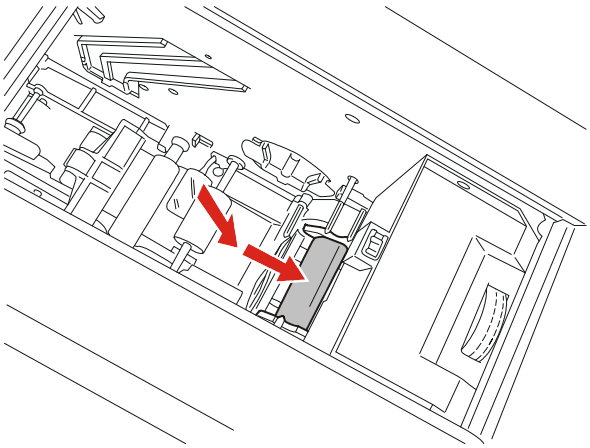


5) Remove the roller by extracting it parallel to the printing module and slightly upwards, until hearing a release click.

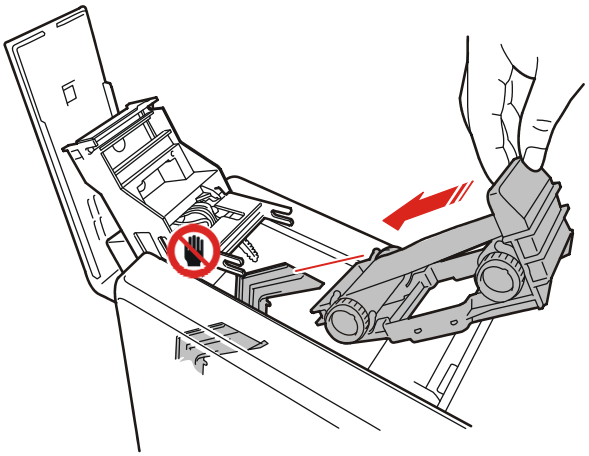


6) *Clean the roller using water or other liquids that will not damage the surface.*

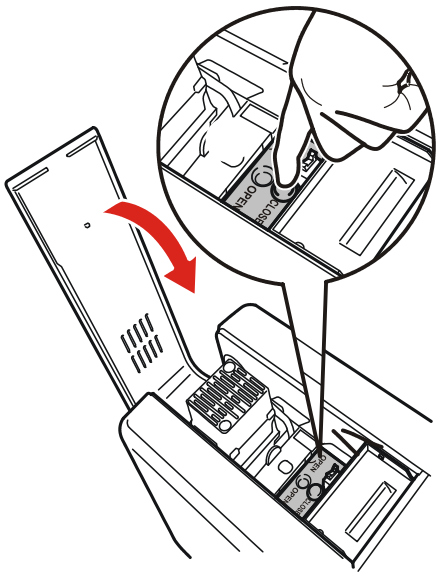
7) Reinsert the roller, pushing it into its seat, pressing downwards and parallel to the surface of the printing module.



8) Insert the ribbon carrier.



9) Close the printing module compartment cover.



10) The roller cleaning procedure is now concluded.

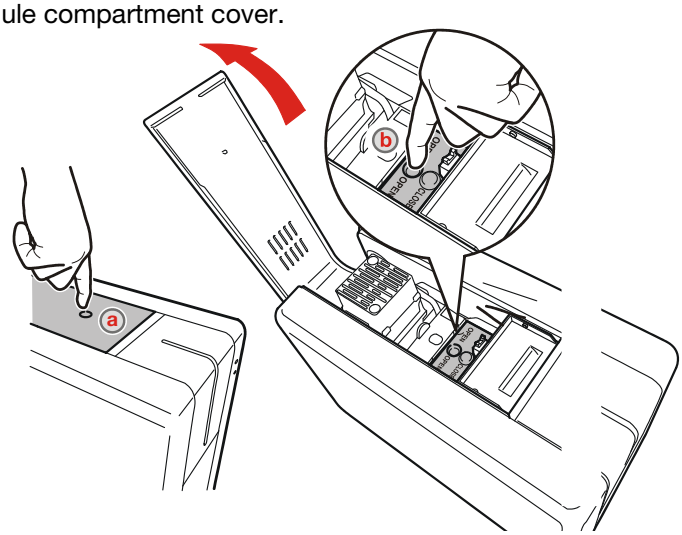
Printhead Cleaning

It is suggested to clean the printhead when dots are missing on the printed cards:

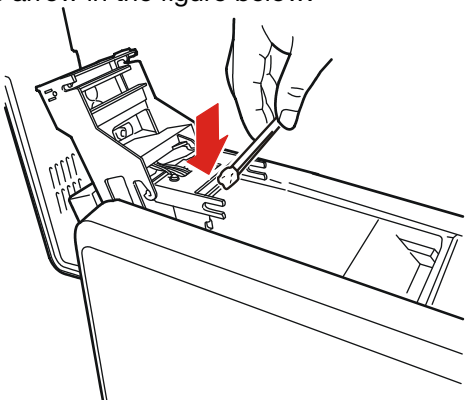
- The edge of the printhead must be cleaned using the special impregnated swab or the cleaning pen.
- The edge of the printhead must be cleaned to remove residual ink or dust.
- Unplug the printer from the power outlet before cleaning the printhead.

Printhead Cleaning Procedure

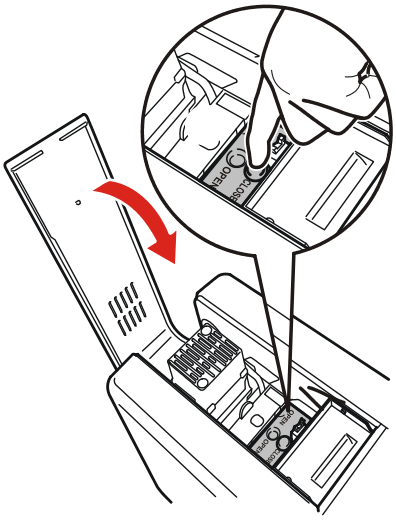
1) Unplug the printer from the power supply.
2) Open the printing module compartment cover.



3) Using the cleaning swab that is provided in the Cleaning Kit, clean the printhead by rubbing the swab it in the direction indicated by the arrow in the figure below.



4) Close the printing module compartment cover.



5) The printhead cleaning procedure is now concluded.

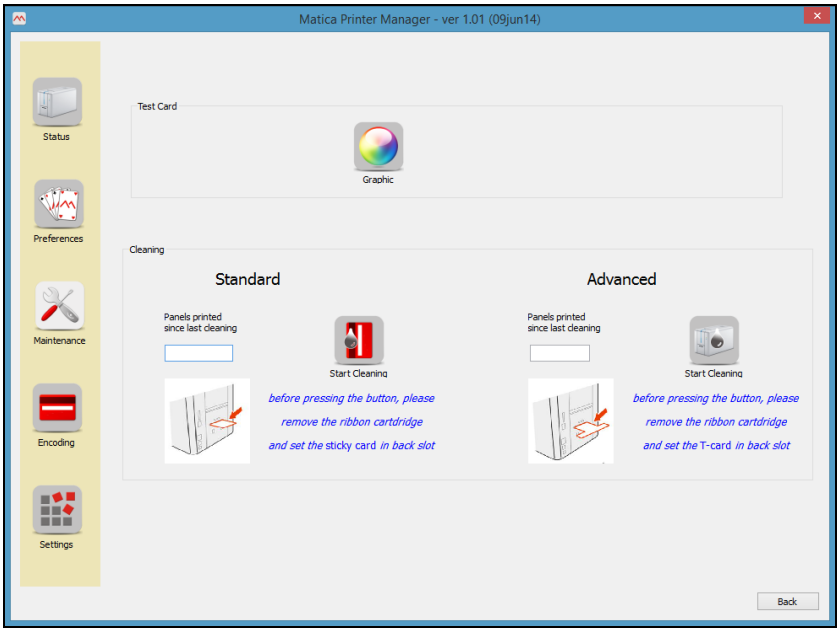
Printing Test Cards

Test Cards are used to check that the printer is operating correctly and to obtain some important printing parameters:

- Serial number
- FW version
- Work cycles (cards and ribbons).

The test card starts with a hidden ON/OFF sequence (see the Operator Panel Description).

Open the **Printer Manager** and click the **Maintenance** button. The following screen is displayed.



Printing a Text Test Card

In the Test Card area, click the **Monochromatic** button to launch the Text Test Card print quality test. Used mostly when a monochrome ribbon is installed or to test the black panel in a multi-panel ribbon.

Printer information is printed on the Text Test Card.

Printing Graphic Test Card

In the Test Card area, click the **Color** button to launch a Graphics Test Card print quality test. It is mainly used when a multi-panel ribbon is installed. The Test Card printed contains mainly square-shaped graphics and / or colors.

Printing a Dual-Side Test Card

In the Test Card area, click the **Dual Side** button to launch the Dual-Side Test Card print quality test.
The button is only displayed when the Printer Manager is installed on a printer with the dual-side option.

Web Server Interface

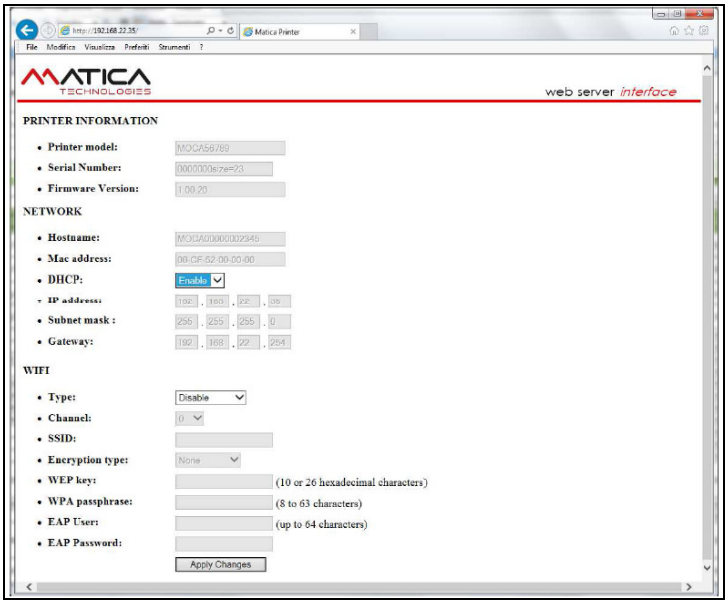
The web server interface is a Setting tab that uses a software browser for setting up the printer's wired and wireless network parameters. This environment can be accessed from the **Printer Manager**, clicking the **Setting function** button followed by the **WEB Interface** button.

Two web interface tabs are available:

- Standard Communication
- Smart Communication.

Standard Communication Web Server Interface Tab

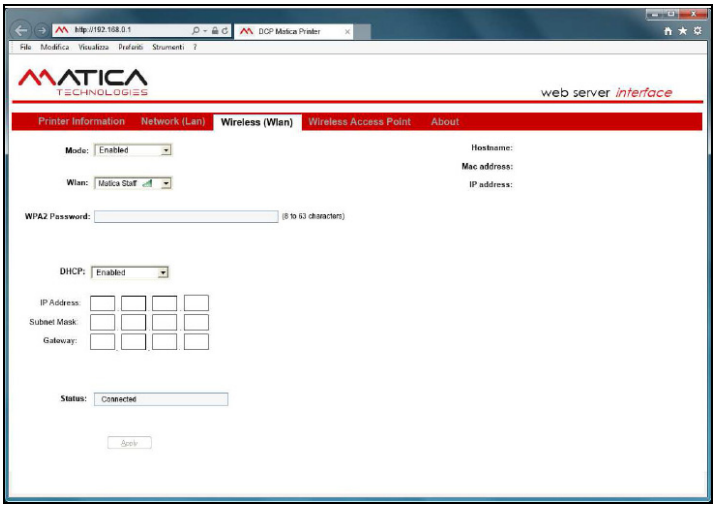
The Standard Communication web server interface tab can only be opened when an IP address is defined.



Ethernet, Wireless LAN and Wireless ad HOC connections can be set in this environment.
Click **Apply Changes** to store the entries made.

Smart Communication (SoM) Web Server Interface Tab

The Smart Communication (SoM) web server interface tab can only be opened when an IP address is defined and the Smart Communication Web Server interface resides in the printer.



This web interface consists of the following tabs: Printer information, Network (LAN), Wireless (WLAN), Wireless (Access Point). Click **Apply** to store the entries made.

Encoding Options

Smart Card Encoding Station

A printer equipped with the Smart Card encoding station works in exactly the same way as a basic Manufacturer. The Smart Card encoding station is used to program chips to ISO 7816-2 standards (except for card type in Appendix B).

Smart Card Encoding Station Location

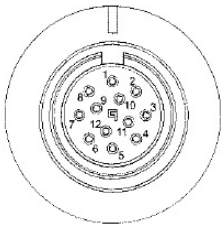
The contact station is an optional module located on the upper part of the printer. Cards are automatically fed in by the internal flip over.

Smart Card Encoding Station Interfaces

Printers that have only the Smart Card contact station (without integrated encoder) can be fitted with an optional female DB-9 connector located at the back of the printer. This connector is directly connected to the contact station inside the printer and also to an external coupler for chip programming.

Contact and Contactless encoder options can also be integrated into the Smart Card Contact Station. These encoders connect to the computer via a USB interface, Ethernet or WiFi.

External Encoding



Binder female socket 12 ways
black connector 720 series
p/n 99 9136 00 12

Pin	Name	Description
1	C8	RFU
2	C4	RFU
3	C7	I/O
4	C3	CLOCK
5	C6	VPP
6	C2	RESET
7	C5	GND
8	C1	VCC=5V
9	CDD_NO	CARD DETECT NO
10	CDD_NC	CARD DETECT NC
11	Free	
12	Free	

A sequence of commands must be sent via the printer interface to insert a card into the printer, position it under the station and establish contact. The command sequence is as follows:

Sending the SIS sequence:

- A card is moved automatically from the feeder to the encoding station and stops. The contact station is pushed downward to make contact with the card.
- The chip can be programmed via the external coupler.

Refer to the Matica printer **Programming Guide** for more information on how to program a Smart Card, and the **Option Installation Manual** for information on how to configure the Card Present signal.

Contactless Smart Card Encoding

Printers can be fitted with an encoding device for contactless Smart Cards (RFID), consisting of an encoding module with a built-in antenna. This type of module must be installed by a specialist only.

The encoder connects to the computer via a USB interface, Ethernet or WiFi. There is a very wide variety of contactless Smart Cards, each card having specific technical characteristics for each specific type of encoder. On request, a large number of different, specific encoders can be integrated.

The programming sequence for a chip is always carried out before the card is printed.

Card Positioning and Antenna Location

In theory, there are no restrictions on card positioning when programming in contactless mode.

However, miniaturisation of components is resulting in cards being fitted with mini-antennae. If this is the case, on customer request, antenna location can be adapted to position the antenna as close as possible to the antenna of the encoder. Doing so will ensure optimal card encoding.

Computer Connection

The encoder is supplied with a USB interface and is connected to the printer's internal USB Hub.

A sequence of commands must be sent via the printer interface to insert a card into the printer and then position it inside the Smart Card encoding station, close to the antenna so as to establish radio communication between the card and the encoder. The command sequence is as follows:

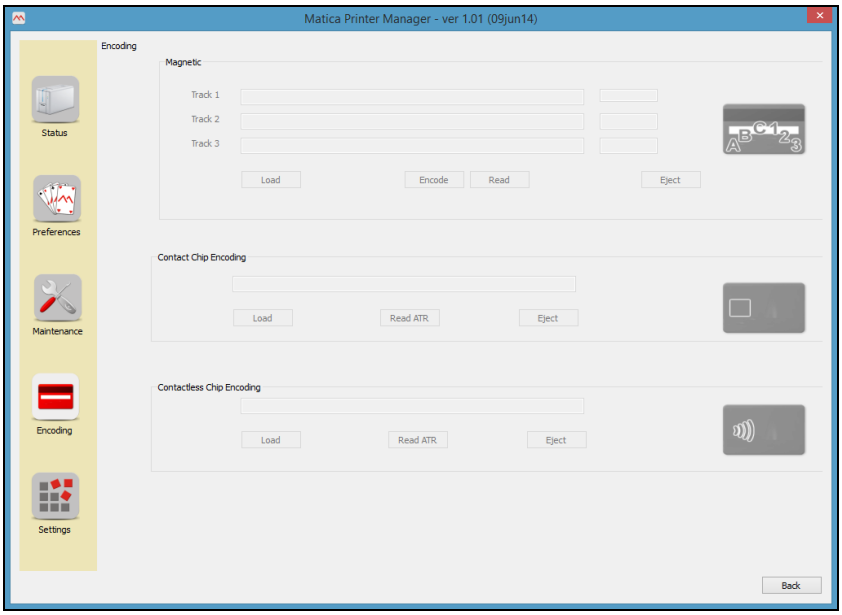
Sending the SIC sequence:

- A card is moved from the feeder towards the antenna and positioned nearby.
- The chip is programmed via the computer's USB interface, connecting the built-in encoder and the computer.

Refer to the Matica printer **Programming Guide** for further details on programming contactless Smart Cards.

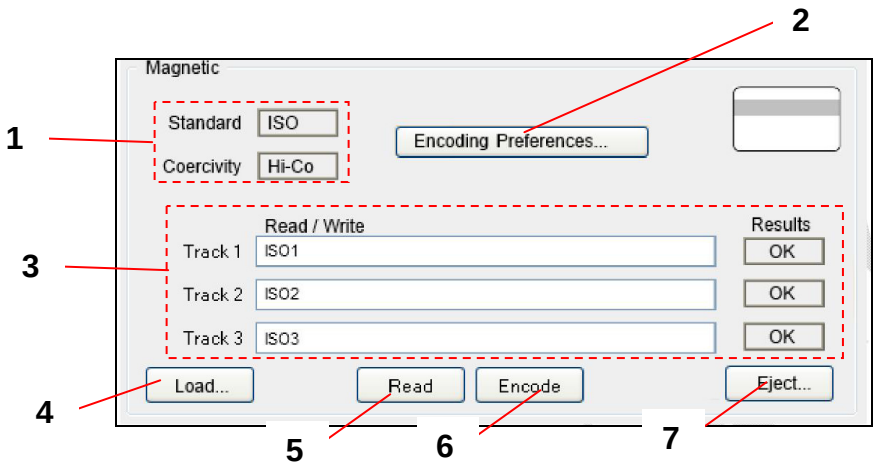
Encoding Function

Open **Printer Manager** and click the **Encoding** button. The following screen is displayed from where it is possible to configure magnetic encoding and obtain the Smart Card ATR number.



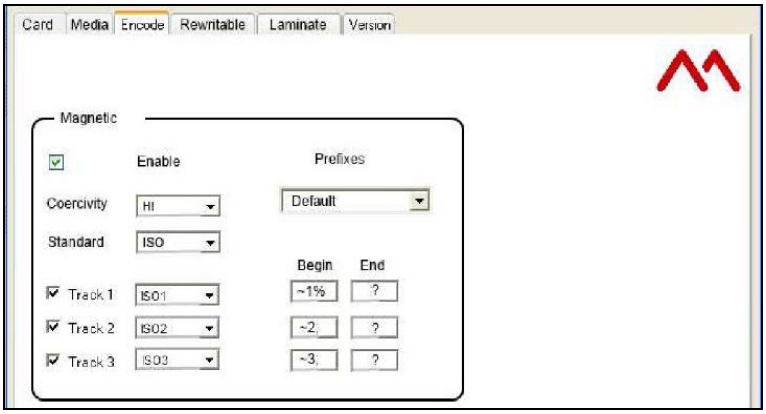
Magnetic Encoding

The magnetic card is read and written in the magnetic encoding area.



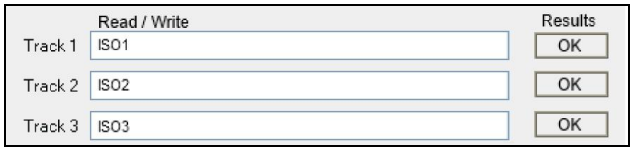
1) The "**Standard**" and "**Coercivity**" values shown in this screen are those set for the printer driver.

2) Click **Encoding Preferences** to open the printer driver's **Encode** tab from where it is possible to change the settings.



3) The Track Area contains the fields where the magnetic tracks can be read or written.

Default Mode in ISO Standard



JIS-II Standard

Printer Driver Track Status	Track Label	Track Window	Result Box
Enabled	Black	Active (inside, the text displayed in grey shows how the track is set for the printer driver)	Active (empty)
Disabled	Grey light	Not Active, the background is slightly grey (inside, the text displayed in light grey shows how the track is set for the printer driver)	Not Active (empty)

When the read mode is selected, the characters read are displayed in the Read/Write window. When the write mode is selected the characters to be encoded are written in this window.

In the write window, certain checks have to be performed on the characters typed. Characters have to be compatible with the ISO or JIS-II standard chosen for the printer driver, otherwise an error message is displayed.

4) Load Button

Click to start a batch job, consisting of:
a) Taking the card from the selected or default input (see card path in the printer driver Card tab)
b) Moving the card to the magnetic encoding area.

5) Read Button

Click to read a magnetic card.

To read the card, it must firstly be positioned in the magnetic encoder by clicking **Load**.

a) For enabled Tracks, it displays the value read in the track windows. In the results window, it indicates whether the operation was executed correctly or not.

b) Upon completion of the card reading, the card remains in the magnetic encoding area until clicking **Eject**, at which point the card is then ejected to the specified card path.

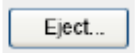
6) Encode button

Click to encode a magnetic card.

To encode the card, it must firstly be positioned in the magnetic encoder by clicking **Load**.

a) Card encoding: for the enabled tracks, reads the characters written in the track window and encodes them.
b) The results window displays whether the operation was executed correctly or not.
c) Upon completion of the card writing, the card remains in the magnetic encoding area until clicking **Eject**, at which point the card is then ejected to the specified card path.
d) If an error occurs during encoding, the card is sent to the Reject bin.

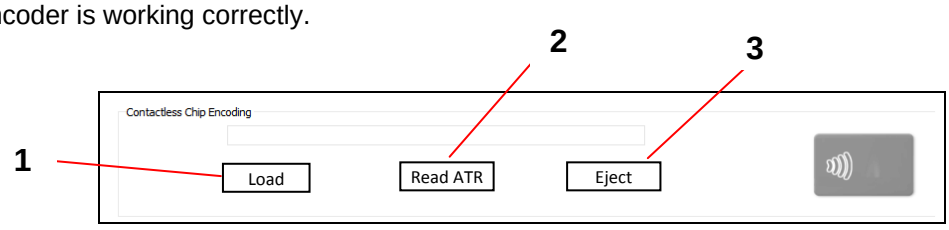
7) Eject Button



Click to move the card that has been left inside the printer to the selected or default output *(see card path in the printer driver Card tab).*

Reading the ATR Code on Contact Cards

This area provides the ATR number of the contact card. This operation is performed to ensure that the contact encoder is working correctly.



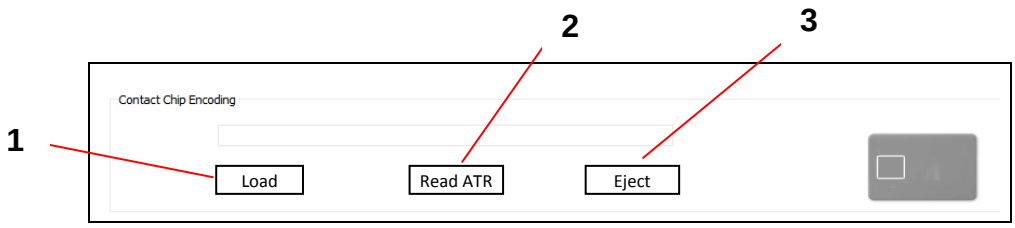
1) Load Button
Click to start a batch job, consisting of:
a) Taking the card from the selected or default input (see card path in the printer driver Card tab)
b) Moving the card to the contact encoder.

2) Read ATR Button
Click to read the contact card's ATR number.
For the ATR Number to be read, the card must be positioned in the contact encoder by clicking **Load**.
The encoder then reads the card and displays the ATR number in the window. The encoder reads and displays the ATR number until clicking the Eject button, at which point the card is moved from the encoder to the output specified for the card path *(see card path in the printer driver Card tab*).

3) Eject Button
Click to move the card that has been left inside the printer to the selected or default output. *(see card path in the printer driver Card tab).*

Reading the ATR Code on Contactless Cards

This area provides the ATR number of the contactless card.
This operation is performed to ensure that the contactless encoder is working correctly.



1) Load Button
Click to start a batch job, consisting of:
a) Taking the card from the selected or default input (see card path in the printer driver Card tab)
b) Moving the card to the contactless encoder.

2) Read ATR Button
Click to read the contactless card's ATR number.
For the ATR Number to be read, the card must be positioned in the contactless encoder by clicking **Load**.
The encoder then reads the card and displays the ATR number in the window.
The encoder reads and displays the ATR number until clicking the Eject button, at which point the card is moved from the encoder to the output specified for the card path *(see card path in the printer driver Card tab*).

Eject Button
Click to move the card that has been left inside the printer to the selected or default output *(see card path in the printer driver Card tab).*

Configurations and Options

CHARACTERISTICS			MOCA	ESPRESSO
		Printing Side	Single	Single
		Card feeders	100 in / 30 out no reject bin	100 in / 80 out w reject bin
		Speed	K: 500 cph YMCKO: 150 cph	K: 850 cph YMCKO: 210 cph
		Communication	USB	USB + Ethernet (print)
		Special features	-	Pass-through mode Half panel Long-lasting ribbons
		Security	Kensington lock	Kensington lock
OPTIONS	FACTORY	Black color		√
		Manual feeder (100 in / 30 out)		√
		Mag encoding	√	√
		WiFi (print only)	√	√
		Smart comm.kit (print+encode Ethernet/WiFi+SD)		√
		Security lockers		√
	ON SITE	Duplex upgrade kit		√
		Reject bin	√	
		Contact chip encoding kit (Gemalto)		√
		Contact chip encoding kit (Omnikey)		√
		Contactless chip encoding kit (Omnikey)		√
		External chip encoder connector		√
		Lamination unit		√

Technical Characteristics

- Single-side or dual-side (*) printing module
- Edge-to-edge printing
- Color sublimation and monochrome thermal transfer
- 300 dpi printhead (11.8 dots/mm)
- Up to 128MB of RAM
- Drop-in ribbon carrier
- User-friendly features for easy-to-use functionality and maintenance

Connectivity

- High-speed USB 2.0
- Ethernet TCP-IP, 10BaseT, 100BaseT with Traffic LED (*)
- WiFi IEEE 802.11 b/g (*)
- SD card slot (*)
- Round connector for external encoding (*)

Card Management

- 100-card capacity in automatic input Hopper (0.76 mm – 30 mil)
- 30- or 80- (*) card capacity in output Hopper (0.76 mm – 30 mil)
- Exception card manual feeder (*)
- Rear bin for reject cards (*)
- Card thickness: 0.25 to 1.25 mm (10 to 50 mil)
- Card types: PVC and composite PVC cards, PET cards, ABS cards (*)
- Card format: ISO CR80 - ISO 7810 (53,98 mm x 85,60 mm)

Ribbons

- Automatic detection and parameter setting
- Ribbon level memory and management
- Ribbon optimization in monochrome printing
- Black: 2000 prints/roll
- YMCKO: 200 or 250 prints/roll (*)
- YMCKO-K: 200 prints/roll
- 1/2 YMCKO: 400 prints/roll (*)
- KO: 600 prints/roll

Print Speed

- Single-side Monochrome: up to 850 cph (*)
- Single-side YMCKO: up to 210 cph (*)
- Dual-side YMCKO-K: up to 140 cph (*)

Encoding (*)

- Magnetic encoder (read/write) 3-track HiCo/LoCo ISO 7811 and JIS II
- Smart card contact station ISO 7816-1, -2 (excluding Appendix B), -3, -4
- Contact/Contactless encoders compatible with std Cards MIFARE®, MIFARE DESFire® iCLASS® ICODE, ISO 14443 A&B, ISO 15693 and ISO 7816

Software

- Printer driver
- Printer Manager
- Automatic Installer
- CardExchange Matica Go edition (*)
- Edisecure Connect (*)
- Compatible with Windows2: XP SP3; W7 32/64, W8 32/64

Security

- Slot for Kensington® lock
- Lockers with keys for input Hopper, rear bin and ribbon (*)

Power Supply

- Auto-switching external power supply unit with interchangeable power cords
- Input 100-240 Volts AC, 50-60 Hz, 1.5 A
- Output 24 Volts DC, 3.0 A

Dimensions and Weight

- Dimensions (H x W x L): 253 x 200 x 395 mm
- Weight: 6.6 kg

Quality Standards

- CE, FCC, UL, VCCI (*), CCC (*)
- Standby mode and reduced power consumption
- ErP 2009/125/CE
- Sound pressure less than 48 dB (A) in operation mode (ISO 7779)
- Min/max operating temperature: 15° / 30 °C (59° / 86 °F)
- Humidity: 20% to 65% non-condensing
- Min/max storage temperature: –5° / +70 °C (23° / 158 °F)
- Storage humidity: 20% to 70% non-condensing

(*) Only in some models/options

Matica Technologies - www.maticatech.com – All rights reserved